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THE ECONOMIC PHILOSOPHIES OF
V. G. GROMAN, V. A. BAZAROV, N. D. KONDRAT'EV AND A. M. GINZBURG:
A NON-BOLSHEVIK VIEW OF SOVIET ECONOMIC DEVELOPMENT

BY

DAVID JOHN REES

©

A THESIS
SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE
OF MASTER OF ARTS

IN

EAST EUROPEAN AND SOVIET STUDIES
DEPARTMENT OF SLAVIC AND EAST EUROPEAN STUDIES

EDMONTON, ALBERTA
SPRING 1988

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled THE ECONOMIC PHILOSOPHIES OF V.G. GROMAN, V.A. BAZAROV, N.D. KONDRAT'EV AND A.M. GINZBURG: A NON-BOLSHEVIK VIEW OF SOVIET ECONOMIC DEVELOPMENT submitted by DAVID JOHN REES in partial fulfillment of the requirements for the degree of MASTER OF ARTS in EAST EUROPEAN AND SOVIET STUDIES.

T. Yedlin

Supervisor

Ivo Moravcik

Tom M S Priestly

Date: October 20, 1987

I would like to dedicate this thesis to my parents, John and Margaret, who supported me throughout my many years of study.

ABSTRACT

This thesis is a discussion of the major works of four Soviet economists, Groman, Bazarov, Kondrat'ev and Ginzburg, who during the years of the New Economic Policy developed a particular approach of observing the economy as a whole. The economy is seen by these economists to be governed by fundamental economic laws and observable regularities.

Groman, Bazarov, Kondrat'ev and Ginzburg believed that the transformation of the Soviet economy, however backward and impoverished it was in the 1920's, must be undertaken according to particular criteria. Economic development must be predicated on the immediate satisfaction of the population's basic wants and the development of consumers' goods industries. This is supported by their views on the nature of economic growth in the short-run. In the long-run, economic growth is postulated by Kondrat'ev to occur in successive long wave cycles of 48-60 years. To engender economic development and growth, economic plans must be flexible and practical documents, governed by certain conditions.

For various reasons these ideas held by Groman, Bazarov, Kondrat'ev and Ginzburg are not well publicized in Western economic literature. This has led several Western scholars to offer some interpretations of the works of these four economists.

It is the intention of this work to interpret the writings of Groman, Bazarov, Kondrat'ev and Ginzburg in terms of a non-Bolshevik view of Soviet economic development.

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CHAPTER ONE

INTRODUCTION

It is becoming apparent that as technological change continues to radically alter the existing institutional framework of our contemporary international economy, economics will face in the closing years of the 20th century a growing call to explain the complexity and volatility of an increasingly interdependent and fragile global economy. Mounting trade imbalances, international debt, volatile currency fluctuations, excessive liquidity in international money markets and persistent unemployment in all major industrial nations presently threaten to destabilize the world economy. In the face of these current problems many economists, analysts and theoreticians are divided in their opinions about analyses of the prospects for continued future global economic growth, investment and trade. In addition, there is a growing awareness that the assumptions and premises about the nature of industrial efficiency, labour productivity, long-term capital investment and technological change no longer seem applicable or relevant. The nature and scope of economics, as a study of human behavior in allocating scarce resources for alternative uses, it seems, is in a state of flux and profound change.

At the same time as Western economists are being pressed to develop solutions to world economic problems, the situation is not very different in the Soviet Union. As the first nation in the 20th century to attempt a break with the capitalist economic system and to industrialize its economy along decidedly non-capitalist lines, the

Soviet Union is itself facing a profound economic crisis. The economic tenets of high growth, extensive industrial investment and centralized planning which once guided industrialization as an alternative model of economic development, no longer seem certain of ensuring future economic growth and of meeting the demands of an expectant population or the rigours of international competition. In fact, the current institutional setting of the domestic economy portrays a fundamental lack of economic vitality, characterized by industrial inefficiency, poor labour productivity and declining long-term growth rates.[1] All of these problems are said to be the result of an adherence to a policy favouring heavy industry and centralized planning.[2] Thus, Soviet leadership and its economic advisors now search for an approach which can redress many of these current economic problems. Several economic reforms have been announced, of which a number can be traced back to the era of the New Economic Policy (NEP), to many policies and theories discussed then by Soviet economists. It is perhaps ironic and worthy of note that the gravity of current Soviet economic problems has compelled the present leadership to re-examine many of the economic ideas debated some sixty years earlier.

The NEP era was a remarkable period in the early history of the Soviet Union not solely for the respite it gave to a domestic economy disrupted by civil war, political upheaval and disorganization. It also ushered in a period of intense intellectual, cultural and literary ferment. In the field of economic thought, the NEP gave rise to the emergence of several debates among Soviet economists, which from the perspective of our late 20th century civilization are noteworthy for their scope and depth of discussion. In a field of study then dominated by the microeconomic considerations of the 19th century doctrine of laissez-faire and the idea of the innate wisdom of market forces, issues such as economic development, growth, investment criteria and a global approach to economic analysis were almost unknown in Western mainstream economics.[3] It was only with the stock market crash of 1929 and the subsequent plunge into global depression that such issues began to be addressed in Western economic literature. By 1936 when John Maynard Keynes published his master work, The General Theory of Employment, Interest and Money, the remarkable and prescient economic debates in the Soviet Union had been suppressed for some time and most of the former participants executed or imprisoned.

The atmosphere of excitement and intensity characterizing many of the economic debates of the 1920's attracted economists of all political persuasions. Narodniki (populists), Mensheviks and Bolsheviks alike debated with fervour the merits of their respective approaches and methods of economic analysis. Narodniks such as N. D. Kondrat'ev,[4] N. P. Makarov, A. V. Chayanov, A. N. Chelintsev, and A. C. Weinstein were prominent in the debates on the development and role of agriculture in the industrialization of the country. Mensheviks, notably V. G. Groman, A. M. Ginzburg, N. N. Sukhanov, A. B. Shtein and A. L. Sokolovsky and a number of former Bolsheviks, V. A. Bazarov, for example, were mainly active in planning, a subject which sparked particularly fierce debates.[5] Leading Bolsheviks such as N. I. Bukharin and E. A. Preobrazhensky debated intensely the issues of balanced economic development and rapid industrialization.

Countless others of unknown political backgrounds, also, took up the challenge to contribute constructively to the debates over the future course of economic development the nation would pursue.[6] The main source of motivation and stimulus to action for all of these people was their desire to study the major forces shaping the development of the economy and the phenomenon of an economy undergoing recovery from devastation and disorganization, and its eventual transformation into an industrial one.

To discuss in depth the work and contributions of the several Soviet economists mentioned above would require a volume of considerable size and depth of discussion, more than is possible in this study. An extensive literature on the theories and work of Preobrazhensky and Bukharin exists in the West. This study will therefore not reiterate much of what has already been written by and on these men. The works of many of the lesser known economists cited above, while worthy of discussion, regrettably are largely unavailable in the West and would require considerable additional research and effort. Many of the writings of Groman, Bazarov, Kondrat'ev, and Ginzburg, however, are available in the West but for various reasons, historical or otherwise, have remained largely untreated in much of the academic literature on the economic debates of the NEP era. It is the hope of this study to remedy in part this neglect of these men's works.

As economists, statisticians and specialists in the various planning and financial institutions of the Supreme Council of the National Economy (VSNKh), State Planning Commission (Gosplan), and the People's Commissariat of Finance (Narkomfin) and the People's

Commissariat of Agriculture (Narkomzem), these four non-Bolshevik experts occupied very important and prestigious positions--a fact not always recognized in Western works on these men. Moreover, they also held influential posts on the editorial boards of several economic journals such as the organ of Gosplan, *Planovoe khoziaistvo* (Planned Economy), *Statisticheskoe obozrenie* (Statistical Review) of the Central Statistical Administration and the *Ekonomicheskii biulleten'* (Economic Bulletin) of the Institute of Economic Conditions of Narkomfin.[7] Groman and Bazarov, at the height of their influence, were members of the Presidium of Gosplan and the principal collaborators in the drafting of Gosplan's *Kontrol'nye tsifry* (Control Figures), or annual plans for the economy. In 1927 Groman was named "a distinguished scholar" by the RSFSR government in recognition of his work on economic planning and analysis.[8] Ginzburg, the head of the Planning section of VSNKh and considered by many of his colleagues to be the nation's leading expert on industry, was the leading participant in the drafting of VSNKh's five-year perspective plan for industry.[9] Kondrat'ev, the most celebrated of the four in the West for his long wave business cycle research, was until 1928 the head of the Institute of Economic Conditions, which he helped found in 1920 and subsequently directed under the aegis of Narkomfin. The Institute became known for its studies of economic forces shaping the domestic and international economies.[10] For their work and contributions to the economic debates of the period, Groman, Ginzburg and Kondrat'ev were accorded prominent roles at the Menshevik Trial of March 1931. Bazarov, himself, was tried *in* camera, a fate undeserving for a former prominent Bolshevik philosopher and translator of Marx's Das Kapital.[11]

In reading the works of these economists one becomes aware of the originality and determination these men displayed in developing an analytical approach of viewing the economy "as a whole". Though their approach of analysis was rudimentary, it was nonetheless a noteworthy development in early 20th century economic thought. Much of the inspiration for this approach to economic phenomena came from an intense philosophical debate on scientific methodology during the 1920s.[12] It was not coincidental, some write, that this debate on scientific method gave rise to a particularly fierce debate between "genetic" and "teleological" approaches to economic planning.[13] This controversy came to a head in the concrete problems of economic planning and the question of whether in the development of Soviet society one was to place preeminent emphasis on the tendencies immanent in the situation or whether emphasis should be placed on the goals for which one was striving.[14] All of this discussion led to debates on issues of economic development, growth, and investment, which predated by some thirty years similar discussions in the West.[15]

In espousing a particular methodology for studying the economy as an integral whole, the work of these four economsts serves to remind us of the underlying forces at work in an economy. For economists of the late 20th century, the need to develop, as a reliable and practical tool for economic analysis, a general understanding of the forces shaping an economy, is especially acute. The development of a method of viewing economy in a more integral and holistic manner is perhaps the legacy these economists left as they attempted to understand the complexities of a rapidly changing Soviet economy.

Their arrest and imprisonment and that of an entire generation of Soviet economists, statisticians and specialists deprived the nation of an invaluable source of expertise precisely at a time when their exceptional talents could have proved useful in the drives for industrialization. More tragic, perhaps, is the loss to Western and contemporary Soviet scholarship of the opportunities to study and understand the contributions these men and other Soviet economists of the 1920's made to general 20th century economic thought. Their arrest and the barriers of language (for most published exclusively in Russian, a language most Western economists do not understand) have meant obscurity for most NEP era economists. In fact, with few exceptions, most of the Soviet economists cited in this introduction are unknown to most Western economists. Western writing and research on these men, for the most part, remains limited and confined to one controversy of the NEP era: the so-called industrialization debate of 1924-1928. Of the principal Western sources on this period, works by Nicolas Spulber, Alexander Erlich, E. H. Carr, Eugene Zaleski, Jean-Michel Collette and Naum Jasny can be considered classics in their own right.[16] Works by other Western researchers and economists on this era draw on these sources in their treatment of the works of these economists.[17] Inside the Soviet Union, these economists still remain virtually unpublished with the exception of the occasional oblique remark or note in the officially sanctioned economic literature. Recent Soviet pronouncements on

Kondrat'ev, Chelintsev, Makarov, and others indicate some movement toward a long over-due acceptance and recognition by Soviet authorities of the importance and invaluable contribution these and other NEP era economists made to the development of Soviet economic thought.[18] This study must however rely principally on the original untranslated works of the four economists and the research of a few Western scholars. These sources are by no means exhaustive. Unless otherwise noted the translations of the quotations of the four economists are those of this author.

Here particular reference must be made to the works of Jasny, who personally knew Groman and was acquainted with Kondrat'ev and others in the early years of the Revolution. His numerous works on Soviet economic planning and in particular his personal memoirs and writing on these four non-party economists are important references of this paper. Without these sources, this work would not have been possible. Equally helpful in this paper have been the writings of Spulber, Erlich and Collette on the numerous debates in the 1920's over strategies for Soviet economic development, growth and planning. Last but not least have been the primary sources, several articles published by the four economists in the economic journals of their day.

The purpose of this study is thus the following. Firstly, a brief overview of economic conditions under the NEP will be provided in Chapter Two. In Chapter Three a brief discussion and survey of the philosophical tenets of the "genetic" view of these four economists will be undertaken. In so doing it is hoped that the reader will gain some appreciation of the excitement and turbulence these economists shared and experienced as they dared to question and formulate new ideas and approaches to economic development. In Chapter Four this study will briefly discuss their views on economic development, growth and planning. Lastly, this paper will attempt a review of their ideas on development, growth and planning from the commentaries of Western scholars several years later in Chapter Five. In presenting this examination it is hoped that an assessment can be made as to whether the economic arguments and concepts of these four economists remain relevant today in the light of recent Soviet economic developments and of the forces molding our world economy of the late 20th century. It is the wish of the author that this discussion of the economic philosophies of Groman, Bazarov, Kondrat'ev and Ginzburg will serve to familiarize the reader with the important contributions these four men made to the development and advancement of 20th century economic thought.

End Notes

1. An extensive literature exists in the West on the problems of contemporary Soviet economy. Some recent works include Abram Bergson and Hebert S. Levine (eds.), The Soviet Economy: Toward the Year 2000 (London: George Allen & Unwin, 1983); S. F. Cohen, A. Rabinowitch, and R. Sharlet (eds.), The Soviet Union Since Stalin (Bloomington: Indiana University Press, 1980), pp. 113-134; and Holland Hunter (ed.), The Future of the Soviet Economy: 1978-1985 (Boulder, Colo.: Westview Press, Inc., 1978).

2. Some of the more interesting works on this topic are Paul R. Gregory and Robert C. Stuart, Soviet Economic Structure and Performance (New York: Harper & Row, Publishers, Inc., 1986), 3rd. edition; Ronald J. Hill, The Soviet Union: Politics, Economics and Society (Boulder, Colo.: Lynne Rienner Publishers, Inc., 1985), pp. 143-182; and Morris Bornstein (ed.), The Soviet Economy: Continuity and Change (Boulder, Colo.: Westview Press, Inc.,1981).

3. Alec Nove, Political Economy and Soviet Socialism (London: George Allen & Unwin Ltd., 1979), p. 135.

4. Various transliteration styles have popularized Kondratieff or Kondratiev as the common forms of his name. For the purpose of this work, the transliterated form of Kondrat'ev will be used.

5. Naum Jasny, Soviet Economists of the Twenties (Cambridge: Cambridge University Press, 1972). See chapters 10 and 11 which offer a more detailed discussion of many of the lesser known Narodnik and Menshevik economists.

6. See Jasny, Soviet Economists of the Twenties. He discusses a number of non-political economists.

7. Bazarov was a member of the editorial board of Planovoe khoziaistvo from 1925(?)-1928. His name was featured prominently, as was that of Groman, in the list of contributors until some time in 1929 when their names were removed. In early 1930 Planovoe khoziaistvo and Ekonomicheskoe obozrenie were merged under the name of Planovoe

khoziaistvo. Groman was a member of the editorial board of Vestnik statistiki from some time in 1925 until his removal in the purges of Central Statistical Administration in 1928. Since the establishment of the Institute of Economic Conditions in 1920, Kondrat'ev was the chief editor of its Ekonomicheskii biulleten' (Economic Bulletin). The Bulletin ceased publication following the 1928 purges of Narkomfin and his removal as its chief editor.

8. Jasny, Soviet Economists of the Twenties, p. 108.

9. Ibid., p. 139.

10. The Institute of Economic Conditions was well known in the West for its business cycle research. It was one of several such institutes dedicated to cycle research in the world in the 1920's.

11. Jasny, Soviet Economists of the Twenties, p. 125. V. A. Bazarov and I. I. Skvortsov-Stepanov with A. A. Bogdanov as general editor retranslated the three volumes of Marx's Das Kapital, which were published in 1907-1909. Jasny remarked in his book, Soviet Economists of the Twenties (1972) that the 1907-1909 edition continued to be widely used in the Soviet Union.

12. This philosophical debate on scientific method will be discussed in Chapter 3. The best references on this debate are Julius Hecker Moscow Dialogues (London: Chapman & Hall, 1934) and A. Emery, "Dialectics versus Mechanics: A Communist Debate on Scientific Method," Philosophy of Science, II January 1935, no. 1, pp. 7-38.

13. Robert V. Daniels, The Conscience of the Revolution: Communist Opposition in Soviet Russia (Cambridge: Harvard University Press, 1960), p. 361.

14. Raymond A. Bauer, The New Man in Soviet Psychology (Cambridge: Harvard University Press, 1952), pp. 6-7.

15. Nove, Political Economy and Soviet Socialism p. 134. He mentions Jean-Michel Collette, who in his work, Politique des investissements et calcul economique: l'experience sovietique

(Paris: Cujas, 1964), drew attention to the pioneering work of many non-Party or former Menshevik economists.

16. For the discussion of the industrialization debate of 1924-1928 consult Alexander Erlich, The Soviet Industrialization Debate, 1924-1928 (Cambridge: Harvard University Press, 1960); Nicolas Spulber, Soviet Strategy for Economic Growth (Bloomington: Indiana University Press, 1964) and its companion volume of translations, Foundations of Soviet Strategy for Economic Growth, Selected Soviet Essays, 1924-1930 (Bloomington: Indian University Press, 1964). For a discussion of the politics and analysis of planning theories see Jean-Michel Collette, Politique des investissements et calcul économique: l'expérience soviétique (Paris: Cujas, 1964) and Eugene Zaleski, Planning for Economic Growth in the Soviet Union, 1918-1932 (Chapel Hill: University of North Carolina Press, 1971). For biographical information and some discussion of the theories of these economists see Naum Jasny, Soviet Economists of the Twenties (Cambridge: Cambridge University Press, 1972). For a general overview and some references to the planning debates and controversies consult E. H. Carr and R. W. Davies, Foundations of a Planned Economy (London: MacMillan & Co., 1969).

17. There is an extensive body of literature which has arisen in the past twenty years on the economic policies of the NEP era. Some of the more interesting articles are Robert W. Davies, "Planning for Rapid Growth in the USSR," Economics of Planning, Vol. 5, 1965, nos. 1-2, pp. 74-85; Maurice Dobb, "The Discussions of the Twenties on Planning and Economic Growth," Soviet Studies, Vol. 8, 1966, no. 2, pp. 198-208; Edwin Dolan, "The Teleological Period of Soviet Economic Planning," Yale Economic Essays, Vol. 10, 1970, no. 1, pp. 3-42; Jack Miller, "Marxist Economic Theory in the USSR," Studies on the Soviet Union, Vol. 7, 1967, no. 1, pp. 35-50; and R. Schlesinger, "A Note on the Context of Early Soviet Planning," Soviet Studies, Vol. 16, July, 1964, pp. 22-44. For further references consult the secondary sources in the listing of bibliographical sources appended to this study.

18. On July 16, 1987 Kondrat'ev, Chelintsev, Makarov, Chayanov and eleven other NEP era economists were rehabilitated by the

Soviet government. See The Globe and Mail August 5, 1987 issue, p. A5.

CHAPTER TWO

AN OVERVIEW OF THE NEW ECONOMIC POLICY (NEP)

1921-1928

The task of this chapter is to provide an overview of the aims of the New Economic Policy and of the prevailing economic conditions of that period. Under the NEP the Soviet economy followed a long and sometimes tortuous path toward recovery from the devastation wrought by war, political upheaval and disorganization. It was in this climate of economic recovery that Groman, Bazarov, Ginzburg and Kondrat'ev were inspired to formulate their respective philosophies about the nature of economic processes in general and their theories on economic development and planning in particular.

After seven years of war, political upheaval and disorganization, there was little doubt in 1921 about the ruinous state of the Soviet economy:

> The gross product for all industry in 1921 was only 31 percent of the 1913 level, while the output of large scale industry was only 21 percent, freight turnover of the railways, 22 percent, the gross product in agriculture, 60 percent. Also, coal-mining had dropped from 29.2 million tons to 8.7 millions, to less than a third; the pig iron smelting from 4.2 million tons to 190,000 tons, to a twenty-third of the former level; oil extraction from 10.3 million to 3.9 million tons,by nearly two-thirds.[1]

In a report delivered on 15 March to the assembly of the Tenth Congress of the RKP(b), Lenin acknowledged the perilous state of the economy and urged the Party to moderate its economic policies:

> In this backward country, the workers, who have made unprecedented sacrifices, and the mass of the peasants are in a state of utter exhaustion after seven years of war. This condition borders on complete loss of working capacity. What is needed now is an economic breathing space . . . . The system . . . has been created by war and not by economic requirements, considerations or conditions. There was no other way out in the conditions of the unexampled ruin in which we found ourselves, when after a big war, we were obliged to endure a number of civil wars. We must state quite definitely that in pursuing our policy, we may have made mistakes and gone to extremes in a number of cases... The main economic consideration now is to increase the quantity of products. Our principal productive forces, the peasants and workers, are in such a state of impoverishment, ruin, weariness and exhaustion that for a time we must subordinate everything to this main consideration-- increasing the quantity of products at all costs.[2]

A. General Aims of the New Economic Policy

In inaugurating the New Economic Policy, three immediate aims were to be pursued:

> (1) 'at all costs' to increase the quantity of products;
> (2) to remedy the political crisis so as to appease the hostility towards the Central Government shown by the peasantry and by a considerable part of industrial workers as the economic difficulties increased, and to end the growing alienation between villages and towns; and
> (3) to keep all the economic 'commanding heights' in the hands of the State and to use them for directing the restoration of productivity in such a way as to secure the victory of 'the proletarian

> sovereign power; over the newly released forces of 'capitalism'[3]

In order to increase the quantity of products, many of the constraints binding agriculture and the peasantry were loosened. The hated prodrazverstka system of forced food requisitions was ended and in its place was introduced prodnalog, a tax in kind on peasant produce. Instead of the State attempting to forcibly extract all of the peasasnts' surpluses, the State now would take only a fixed portion. The tax in kind, after 1924, became payable in currency.

The introduction of the tax in kind left the peasant with marketable surpluses. Initially permitted to market their surpluses locally, the peasant soon began to engage in a reviving private trade between the town and village. The original idea of the Party, that the peasant would locally market his surpluses and the state would organize a national barter trade system between towns and villages, was dashed with this vigorous spontaneous re-emergence of private trading.

As the main productive force, the peasantry represented a major potential political rival to the Party. Imbued with the "petit bourgeois" mentality of the small property owner, the peasant did not encourage the development of socialism. The solution to this dilemma for the regime was to attempt a change in the material base and the technique of agricultural production, by its mechanization and by co-operation.[4] By these means solely could the smychka, the union between the industrial worker and the peasantry, between town and village be preserved. To achieve this, large-scale industry had to be built up to

> . . . immediately supply the small peasants with a sufficient amount of goods, or more than previously, and in this way the supply of surplus agricultural goods coming from the peasants, then the peasants will be fully satisfied, then the mass of peasants, the non-Party peasants, will acknowledge, by virtue of experience, that this new system is better than the capitalist system . . . . When there is no flourishing large-scale industry which can be organised in such a way as to supply the peasants with goods immediately, then the gradual development of a powerful alliance of the workers and peasants is possible only through trade and the gradual advance of agriculture and industry above their present level, under the guidance and control of the workers' state. Sheer necessity has driven us to this path. And this is the sole basis and substance of our New Economic Policy.[5]

To facilitate the development of large-scale industry, the administrative system which governed the industrial sector had to be dismantled. The bloated state of the Central budget and the apparent disorganization and financial pressures of industrial enterprises demanded some movement toward greater freedom. The drives for complete nationalization were abandoned and private enterprises were allowed to re-emerge. A number of industrial concerns were de-nationalized and returned to their former owners. State ownership, however, remained over much of the large-scale industry and the banking sectors. Foreign investors were invited to take out concessions for industrial and mining enterprises and development projects.[6] State industrial enterprises were placed on the khozraschet system of economic cost accounting in an effort to make them self-supporting and more accountable for their performance. To remedy the chronic budgetary deficits, Narkomfin and Gosbank (State Bank) were instructed to stabilize the currency, lower budgetary deficits, and raise revenues.

While Lenin was admonishing his comrades for their past mistakes in the first years of the NEP, a private report prepared sometime in December 1922, by a group of Mensheviks including Groman, calling themselves "The League of Observers[7]," remarked in a more succinct and forceful way of who was to blame:

> Lenin was the brains of the revolution--he thought for it. The revolution lived only by his ideas and thoughts, and to the extent that he deviated from his former ideas, it was necessary both to suppose and to hope that the whole revolution would deviate from them. Like an illusion, the ideas of October led the country along a false road and in a false direction . . . The revolution was not based on reality but rather on life distorted by political illusions and farfetched, abstract economic ideas. If these false ideas which were directing the country were to be removed, then there would be a basic hope that the country could set out along a different, and this time, correct and rational course.[8]

Insofar as the New Economic Policy was an attempt to correct the course of the nation's development and to renew hope among the major sections of the population, the members of the "League of Observers" considered it their "patriotic" duty

> . . . to promote the most rapid restoration of the economy and a normal life, and also considered it axiomatic that only under such conditions could the welfare of the population be established . . . that the only path left open to the intelligentsia, which did not want to remain inactive, was to work honestly and conscientiously within the Soviet regime . . . that henceforth the intelligentsia would be able to

> work according to its conscience and not out of fear, as had previously been the case.[9]

The adoption of a resolution written by Lenin to seek the advice of specialists at the Eleventh Party Congress in April 1922 strengthened the resolve of thousands of non-Party specialists to work actively for the reconstruction and future of the national economy.[10] To the members of the future League of Observers, the NEP became not simply the "abolition of the hated rationing system but . . . the abolition of the system of ideas which was restricting and killing life."[11] In this climate of reconciliation in 1922, Groman, Bazarov, Ginzburg, Kondrat'ev, and other non-party specialists accepted prominent positions in those state agencies of Gosplan, the VSNKh, and Narkomfin.

B. Economic Conditions Under the NEP

Though the inauguration of the New Economic Policy in the spring of 1921 led to the dismantling of much of the War Communism system, this loosening of the economic strictures did not lead to an immediate broad advance in all sectors of agriculture and industry. Unfavourable harvests, a misalignment in the price structure between farm and industrial goods, the problems of reactivating idle industrial plant and a deficiency of industrial working capital conspired to create a period of economic recovery, from the spring of 1921 to the spring of 1926, which was characterized by a growing imbalance in the terms of trade between agriculture and industry. While agricultural output recovered quickly, stagnation continued in large-scale industrial production. This unevenness in the recovery erupted in the so-called "scissors crisis" of 1923-1924. It was only with the closing of the "price scissors" and the currency reforms in early 1924 that general economic conditions in both sectors improved markedly. By 1926 agricultural production had recovered to its pre-war level and industry, principally large-scale industry, was beginning to register rapid growth rates and a higher utilization rate of available industrial plant and equipment. From the spring of 1926 to the spring of 1928 agriculture and industry advanced to new levels of production. This period of new development became known as the "period of reconstruction". Yet, throughout these years a number of economic problems bedeviled the economy and underscored the fact that the Soviet economy, in spite its recovery to a measure of economic normalcy, remained very much an underdeveloped and backward one.

Economic Recovery, 1921-1926

The revival of the economy, proclaimed as the guiding principle of the New Economic Policy, was not assured following the abandonment of War Communism in March 1921. In the years 1921-1926, the major sectors of the economy registered uneven growth rates. An initial recovery in industrial production appearing in 1921 slowed by late 1923. Agriculture in the first year of the NEP did not recover but declined under the effects of a severe drought. The 1922 harvest was the first good one in several years. This recovery in agricultural output coupled with an official drive to wring out inefficiencies in state enterprises gave rise to an immense disparity between the prices of agricultural and industrial products. The closing of the price scissors in the spring of 1924 set the basis for a stronger and broader recovery involving both sectors so that by 1926 agricultural output came close to attaining its 1913 level, while gross output for large-scale industry for the first time in thirteen years, exceeded its prewar levels. In spite of this recovery to prewar levels, the economic revival was not without serious problems - unemployment, inflation, low industrial investment, poor labour productivity and high production costs.

TABLE 1

GROSS OUTPUT OF LARGE-SCALE INDUSTRY, 1920-1926

(in millions of 1926-1927 Rubles)

Year	Total Industry		% of 1913	Producers' Goods		Consumers' Goods	
	Output	% Growth	Level	Output	% Growth	Output	% Growth
1913	10,251	-	100.0	4,177	-	6,074	-
1920	1,410	-	13.8	665	-	745	-
1921	2,004	42.1	19.5	876	31.7	1,128	51.4
1922	2,619	30.7	25.5	1,173	33.9	1,446	28.2
1923	4,005	52.9	39.1	1,925	64.1	2,080	43.8
1924	4,660	16.4	45.5	2,109	9.6	2,551	22.6
1925	7,739	66.1	75.5	3,356	59.1	4,383	71.8
1926	11,083	43.2	108.1	4,865	45.0	6,218	41.9

Source: I. A. Gladkov, (ed.), Sovetskoe narodnoe khoziaistvo v 1921-1925 gg. (Moscow: Akademiia Nauk SSSR, 1960), Table 28, p. 223, and pp. 223-224.

The recovery in gross output of large-scale industry can be clearly seen in Table 1 above. Large annual percentage growth rates occurred in both sectors of large-scale industry. This is not surprising when one notes that the level of gross output of large-scale industry in 1920 was only 13.8 percent of the prewar level. What is surprising is the presence of large variations in the rates of growth from year to year.

On a closer inspection of the gross output figures in the table above, with the exception of 1924, one can see that annual growth in total output of large-scale industry exceeded 30 percent. A considerable portion of the initial recovery in large-scale production could be attributed to the implementation of the commercial policies of the NEP and subsequent reorganization of many industrial enterprises into trusts for greater efficiency of production, marketing and management. The resumption of high growth rates after 1924 came with the reorganization of the banking system, establishment of a stable currency, availability of credit, good grain harvests and the announcement of several large-scale construction projects. This impressive growth, however, fails to show that the heavy industries such as steel, pig iron and coal mining were still producing below their 1913 levels in 1926.[12]

Although the recovery in large-scale industrial production to prewar levels was essentially complete by 1926, it was by no means uniformly felt in all branches. If one were to calculate the total growth of producers' goods and consumers' goods industries over the entire recovery period, one would discover that total production of consumers' goods industry increased by 1271 percent over its pre-NEP 1920 level, while the comparable figure for producers' goods was 631 percent. Clearly, these figures reflect the nature of end use markets, capital requirements, labour productivity and the ability of the respective industrial branches of large-scale industry to revitalize idle capacity and to construct additional productive capacity. The recovery of industrial production was summarized by Groman and Bazarov in the following way:

> (1) Revival appears first in the industries that serve primary food needs, next in textiles, and finally in the heavy metallurgical lines.
> (2) Industries producing means of production revive later than those serving the immediate needs of the population, but the expansion of the former is more vigorous as the revival proceeds.
> (3) The most intensive growth is to be observed in those productive branches which, during the preceding slump, had fallen to the lowest levels.
> (4) The tempo of revival and reconstruction declines as the economy approaches former levels.[13]

The initial recovery in industrial production in 1921, however, was not followed by a corresponding revival in agricultural output. Unfavourable climatic conditions in the principal grain growing regions of the country resulted in a major crop failure. Recovery in agricultural output came only in 1922 when more favourable growing conditions led to the collection of a much improved grain harvest. This improvement in gross grain production can be clearly seen in Table 2 below. Production advanced by an annualized rate of approximately 67 percent. This first sign of recovery, however, is cut short by the deterioration of market relations between town and country in 1923 and 1924. The end of the crisis in early 1924 leads to a significant rise in production in 1925 and an additional increase in 1926.

TABLE 2

GROSS GRAIN PRODUCTION, 1920-1926

(in millions of tons)

Year	Production	Percentage Change	Percentage of 1913 Level
1913	77.9	-	100.0
1920	45.0	-	57.8
1921	34.9	-22.4	44.8
1922	58.1	66.5	74.6
1923	53.3	-8.3	68.4
1924	51.9	-2.7	66.6
1925	69.9	34.7	89.7
1926	74.7	6.9	95.9

Source: A. A. Santalov, and Louis Segal, (eds.), Soviet Union Year Book 1929 (London: George Allen & Unwin Ltd., 1928), p. 87.

Though the recovery in gross grain production is clear from Table 2 above, grain production in 1926 was marginally below its prewar level. By 1926 the price relationship between farm products and non-farm goods was once more moving against the peasant. Yet, in the words of one analyst the level of grain production in 1926 must be regarded as good.[14] In this light one finds it surprising that the huge distortion between farm and non-farm prices in 1923-1924 did not cause grain production to fall more dramatically than was the case for the harvests recorded in those years.

This rapid revival in large-scale industry and agriculture was not without its problems. In shifting the economy onto a commercial basis, the NEP demanded that all enterprises operate efficiently and profitably, prices recover all costs, currency serve as a stable unit of measurement and the state budget be balanced. This immersion into the cold bath of commercial principles brought to the fore several vexing problems, which belied the underdeveloped nature of the economy.

Unemployment was the most immediate problem to emerge when industry was suddenly compelled to operate on commercial principles. Management of most enterprises was instructed to reduce production costs and raise profit margins. Concomitant with these instructions came the amalgamation and reorganization of most industrial enterprises into trusts, which meant in many cases the closing of inefficient operations and their consolidation into more efficient ones. In other cases the trusts reduced their staffs to reflect lower production levels and demand. For the government bureaucracy, proposals were advanced by a special Committee for the Reduction of Staffs to reduce employment of State departments by 50 percent.[15] By the end of 1922 the cumulative effects were evident in a rise in the number of registered unemployed to 500,000. In January 1924, the scissors crisis and continuing drives to reduce featherbedding and the bureaucracy had pushed unemployment to 1.24 million, which would fall to 950,000 in the following year as idle industrial capacity began to be used up.[16] As a percentage of the total employed labour force, unemployment fell most heavily on young people and rural migrants.

The initial industrial revival in 1921-1922 was principally the result of a sudden flooding of the market with manufactured goods by the industrial enterprises. Now tethered to commercial considerations of profit, price and sales, industrial enterprises were compelled to quickly accumulate sufficient working capital reserves. This led to a rapid disposing of assets and stocks by bazaar methods, the so-called razbazarivanie. This rapid disposition of stocks in early 1922 caused a decline in the price of industrial goods relative to agricultural products. A serious depletion in the supply of these goods to satisfy an unexpected rise in peasant demand after the 1922 harvest then resulted. Complicating this situation was a rapidly depreciating currency. These factors led to a break in the ratio between industrial and agricultural prices. On 1 October 1923, in terms of the newly-stabilized currency, industrial prices were 276 percent of its 1913 level, while agricultural prices fell to 89 percent.[17] This price divergence was closed in early 1924 by a resort to industrial price controls, tight credit and further efficiency drives in industry. At the basis of this crisis lay the unevenness of the revival in industry and agriculture. Moreover, this grievous situation also spoke of a chronic shortage of investible funds for industry on one hand and of the backwardness and inefficiency of peasant agriculture on the other.

When the NEP was introduced the problem of a monetary unit immediately became acute. Various attempts were made to design a stable unit of account. In July 1922, a new unit, the gold chervonets, was created to stabilize the currency, balance the budget and reduce inflation. In February 1924 the chervonets was made the sole legal tender. The sovznak or paper ruble was ordered withdrawn from circulation. The withdrawal of the sovznak signified the end of a tremendous inflation in the money supply, which led Bazarov in 1923 to quip that "the time is not far distant when the sum of the nominal rubles will exceed the number of all atoms of which our planet is composed."[18] These nominal rubles by March 1924 had ballooned to 866,101,000 billion rubles.[19] The practice of resorting to the printing presses to balance state finances was replaced by the more accepted and fiscally conservative measures. In the fiscal year 1923-1924 the state budget was balanced.

The recovery in large-scale industry to prewar production levels by 1926 depended on improvements in labour productivity, capital investment and operational efficiency. Labour productivity in large-scale industry throughout the recovery period remained below its corresponding 1913 level. Overstaffing, lack of skilled labour, raw material shortages, equipment breakdowns and managerial disorganization conspired to keep industrial labour productivity low. Campaigns to eliminate overstaffing exemplified the need to raise labour productivity throughout the recovery period. Compounding this low productivity was a profound shortage of working capital faced by all industrial enterprises. The razbazarivanie methods of 1921-1922, and the withholding of industrial goods in the scissors crisis of 1923-1924 were attempts to obtain additional capital. The chronic shortages of investment capital in the early years of the NEP prompted enterprises to seek relatively less capital intensive means to use up underutilized capacity. Much of the industrial growth after 1924 came from the revitalization of idle capacity and from small additions to plant capacity. The question of efficiency throughout the recovery period, however, remained pressing, in spite of small improvements in labour productivity and the utilization of idle plant capacity.

Economic Reconstruction, 1926-1928

During 1926 industry and agriculture recovered to and in some instances surpassed their prewar production levels. This heralded the beginning of what became to be called the "economic reconstruction" period. Policies of stimulating the economic recovery were now giving way to resolutions favoring industrialization, collectivization and the Five Year Plan. By the spring of 1928, the heightened tempo of major capital investments in heavy industry strained all means of supply, creating bottlenecks. In agriculture, a collapse in marketed grain led to compulsory procurements being temporarily re-introduced to increase grain collections from the peasants. These strains by 1928 were reflected in a deterioration in relations between town and countryside, continued high unemployment, the emergence of a "goods famine" and forced growth in heavy industry.

The surpassing of prewar levels of large-scale industrial production in 1926 marked the occasion for the Party to redouble its efforts to push for greater investment in heavy industry. For the economic year 1926-1927 capital investments in heavy industry were planned to rise by 53 percent and those in light industry by only 23 percent, and in 1927-1928 by 30 percent and 7 percent respectively.[20]

As shown in Table 3 below the gross output of producers' goods industry had more than doubled its 1925 levels by 1928. Not included in these figures were advances made by the steel, pig iron and coal branches of the metallurgical industry, by oil extraction and by electrical generation. Pressed by concerns of national defense, by the desire to increase industrial capacity and by the need to push industry to a higher technologically advanced level, steel, coal and pig iron approximately doubled their 1925 production levels, with pig iron production increasing from 1.535 million tons to 3.3 million tons in 1928, steel from 2.135 million tons to 4.0 million tons, and coal from 18.1 million tons to 35.4 million tons.[21]

TABLE 3

GROSS OUTPUT OF LARGE-SCALE INDUSTRY, 1925-1928

(in millions of 1926-1927 Rubles)

Year	Total Industry		Producers' Goods		Consumers' Goods	
	Output	% Growth	Output	% Growth	Output	% Growth
1925	7,739	66.1	3,356	59.1	4,383	71.8
1926	11,083	43.2	4,865	45.0	6,218	41.9
1927	12,679	14.4	5,585	14.8	7,094	14.1
1928	15,818	24.8	6,842	22.5	8,976	26.6

Sources: Eugene Varga, Two Systems (New York: International Publishers, 1939), p. 66; Naum Jasny, Soviet Industrialization, 1928-1952 (Chicago: University of Chicago Press, 1961), p. 42; and I. A. Gladkov, Sovetskoe narodnoe khoziaistvo v 1921-1925 gg. (Moscow: Akademiia Nauk SSSR, 1960), Table 28, p. 223.

For consumers' goods industry, gross output more than doubled in the same period. Increasing wage income and a growing demand among the urban population for manufactured goods led industrial enterprises to increase their production of basic consumer goods. After 1925 the yearly percentage increases, however, began to drop. Nevertheless, the increases of 14 percent in 1927 and 27 percent in1928 clearly indicate a broadly based and rising demand for consumer goods.

While large-scale industrial output continued to record substantial annual gains throughout the 1926-1928 reconstruction period, agricultural output, on the other hand, increased negligibly. Grain production rose marginally as the sector began to labour under increasingly unfavourable prices for farm products and a decidedly more belligerent attitude by the Party toward prosperous peasants and grain collections.

Gross grain output in Table 4 below for the years 1925-1928 shows clearly the development of this unfavourable position in agriculture. From 1925 to 1928 the total increase in grain output amounted to 6,200,000 tons or barely 9 percent. The 1927 harvest was fair, while the 1928 crop, on average, was poorer due to a marginal decline in the areas sown to grain. This was partly in reaction to the temporary compulsory grain procurements implemented in the spring and in part due to a partial crop failure in the Ukraine. Moreover these relatively low annual ~~increases in grain~~ output were not following population growth[22] and threatened to upset the ambitious industrialization plans adopted at the Fifteenth Party Congress in December 1927.

TABLE 4

GROSS GRAIN PRODUCTION, 1925-1928

(in millions of tons)

Year	Production	Percentage Increase
1925	69.9	22.7
1926	74.7	6.9
1927	77.0	3.1
1928	76.1	-1.2

Source: A. A. Santalov and Louis Segal, (eds.), Soviet Union Year Book 1929 (London: George Allen & Unwin Ltd., 1928), p. 87.

The growth of industrial and agricultural output during the reconstruction period was not without problems. Urban unemployment, unfavourable price relationships between industrial and agricultural goods, and uneven industrial growth showed that the Soviet economy was underdeveloped and backward. A new and more ominous problem, however, arose in the form of a growing deterioration in the relations between the villages and towns.

Unemployment became a particularly vexing problem. Whereas the majority of the unemployed before 1925 were industrial and government workers released from their work in numerous campaigns to streamline production and the bureaucracy, after 1925 the majority of those seeking employment in the towns, registered and unregistered, were unskilled rural workers. The Central Council of Trade Unions, in June 1928, reported an increase in the number of unemployed trade unionists from 1.5 million to 2.0 million in the past winter, and of that number excluding seasonal workers, only 250,000 were skilled workers.[23] The new entrants into the ranks of the unemployed were now newcomers from the villages escaping rural overpopulation and a developing disquiet in the countryside.

In the villages a resurgence in the growth of the rural population began to compound the age-old problems of land hunger and backwardness. S. G. Strumilin, a Gosplan economist, estimated that in 1927-1928 agrarian overpopulation stood at between 8 and 9 million.[24] This growing overpopulation was now compounded by a relative stagnation in grain production which had resulted from the breakup of the large estates and the parcelling of these lands among the peasantry during the October Revolution. It was becoming apparent that agricultural production would not be sufficient to feed the rural population and also supply raw materials to industry and foodstuffs to a rapidly growing urban population. Urban population in the space of five years from 1925 to 1929 had grown by some 5,000,000 to an estimated 28,300,000 by the end of 1928, while rural population grew by 8,700,000 or roughly 8 percent in the same period.[25]

Enmeshed in this problem of rural overpopulation and a growing rural migration to the cities were the problems of the price relationship between industrial goods and farm products and that of grain collections. The recovery of economic output to prewar levels brought in its wake a rising demand for manufactured goods and a growing reluctance on the part of the peasantry to supply grain at officially quoted prices. This reluctance was due in part to a growing distrust and suspicion among the peasantry about the intentions of state grain policies and in part to a re-emergence of currency inflation. This currency inflation, after April 1926, led to the emergence of a wholesale-retail price scissors and a chronic shortage of industrial goods, or "goods famine" in the towns and countryside. Faced with these unfavourable terms of trade, the peasant began to withhold his farm products in the expectation of higher prices to come. Grain collections to the state subsequently plunged in the winter of 1927-1928. To rescue the situation from drastically affecting the tempo of industrialization, compulsory grain quotas were temporarily instituted in the early months of 1928.

While agricultural production essentially stagnated in the reconstruction period, industrial output continued to record relatively large annual percentage increases. This growth was, however, not without costs. A growing concentration of state resources in heavy industry and associated large-scale engineering works at the relative expense of consumers' goods industry began to create supply shortages and to generate inflationary pressures throughout the entire economy. Clearly the necessary investment capital required to expand overall industrial capacity and to meet the demands of a rapidly growing population was far in excess of the capacity of the state and industry to generate such reserves. Labour productivity continued to suffer from shortages of raw materials, equipment breakdowns, and the emergence of a foodstuff shortage. Though industry throughout the period operated at higher rates of capacity, the operational efficiency of most industry remained low and in the words of Ginzburg began to be subject to "a system of bureaucratic regulations which threatened to turn the syndicates into glavki with semi-compulsory powers and to deprive the trusts of a considerable share of their independence."[26] Industrial growth, clearly, was becoming more of a function of state directives than of the need to select appropriate capital investment, increase labour productivity and assist management to lower production costs and raise profit margins.

C. Planning and Economic Agencies Under the NEP

The promulgation of the NEP in 1921 radically altered the nature and role of all state institutions regulating the economy. As well, the NEP gave birth to new agencies for the study and planning of the economy. As the principal state economic organ, the Supreme Council of the National Economy (VSNKh) underwent considerable changes during the NEP era. Gosplan, the State Planning Commission, established in the early months of the NEP, was charged with the exclusive task of developing a scientific planning approach for the economy. In the later years of the NEP, Gosplan became the center of an intense debate over planning methodologies and the drafting of the First Five-Year Plan. This consequently led to a rivalry with the planning sections of the VSNKh and the commissariats over whether which economic agency had the authority to be the supreme organ of the whole Soviet planning process. The work of Gosplan was duplicated and elaborated in detail by the commissariats and their associated institutes. One notable exception was the Institute of Economic Conditions of Narkomfin headed by Kondrat'ev and staffed largely by non-Bolshevik economists and experts to collect and analyze current economic information.

Originally charged in December 1917 with the management of the national economy and state finances, the VSNKh underwent a reorganization in 1921-22. The administrative system of glavki (departments) was dismantled and replaced by a regrouping of industrial enterprises into trusts. These trusts were free to control their enterprises according to the dictates of the market. The VSNKh and its local branches were allowed to exercise their authority only in certain cases and then only by the use of very specific economic and administrative measures.[27]

The establishment of the USSR in 1923-1924 brought about a partial reorganization of the VSNKh along all-union, union-republic and republican lines and the establishment of a number of expert committees. One such committee was OSVOK (Council for the Restoration of Basic Capital) headed by G. L. Piatakov. From 1925 to 1927 OSVOK studied the capital assets and needs of various branches of the economy. Ginzburg, the leading expert on this committee, was charged with coordinating the construction plans of individual industries for the five year period 1925/26 - 1929/30.[28]

In 1926-1927 the VSNKh was reorganized with the industrial departments once more given the name of glavki and placed under the direct control of the presidium of the VSNKh. Detailed supervision and control were once more exercised over industries via the trusts, initially in the controls over new investment and later in the implementation of controls of all kinds in 1927-1928 when resources became scarcer.

Gosplan, set up in February 1921 as the State General Planning Commission, was the sole government agency charged exclusively to deal with planning. In sharp contrast to the VSNKh, the administrative structure of Gosplan remained relatively simple. The structure consisted of sektsii (sections) for industry, transport, agriculture and finance. In 1923 a council of economic conditions was set up and modelled along the lines of the Institute of Economic Conditions of Narkomfin. It was in this special council that Groman and Bazarov carried out much of their research work from 1923-1929. The council's task was to provide Gosplan with a source of current economic information independent of other government agencies.[29] Unlike the reorganizations of the VSNKh during the 1920s, Gosplan grew mainly by expanding its existing sections. By 1927 Gosplan had a staff of 500, the overwhelming majority of whom were non-Party experts.[30]

The initial years of Gosplan's existence, from 1921 to 1924, were spent developing its research methodologies and analyzing current economic information. In spite of the many difficulties in obtaining information from other state agencies, Gosplan, under a series of commissions headed by Groman and Bazarov, compiled and published its annual Control Figures of the national economy for the years 1925/26, 1926/27, 1927/28 and 1928/29. During those years no less than three drafts of five year plans for 1925/26-1929/30, 1926/27-1930/31 and 1927/28-1931/32 were compiled and submitted for approval to the Party and its executive. Not to be outdone, the VSNKh through its OSVOK commission and Ginzburg Commission also prepared drafts of five-year plans for approval.

While the VSNKh devoted its energies to the administration of nationalized industry and Gosplan to working out a single economic plan for the country during the 1920s, the Institute of Economic Conditions dedicated its talents to the study of agriculture and finance. Organized in September 1920 by the Agricultural Academy in Moscow, the Institute with an initial staff of five persons set about to systematically collect, verify and analyze statistical data on Russian and international economic conditions.[31]

After 1921 the Institute developed close ties with Narkomfin and Narkomzem. In exchange for their financial assistance, the Institute regularly submitted to them its data and research reports. In early 1922, the Institute began publishing in its monthly Economic Bulletin statistical data and analyses of economic conditions in Soviet Russia and abroad. Works by many prominent economists and statisticians including Groman appeared in this review.

In 1923 the Institute was reorganized under the aegis of Narkomfin. It soon became a center for the study of current economic conditions. Serious studies were undertaken to forecast economic conditions. Many of these studies by members of the Institute appeared in its monthly review. As the director, Kondrat'ev played a prominent role in many such studies with the publication of several works on business cycles in the Institute. In the purges of Narkomfin in 1928, Kondrat'ev and several members were removed from their research posts and the Institute was merged into the commissariat. The Economic Bulletin which had gained international recognition in the 1920s for its originality ceased publication in mid-1928.[32]

Stalin's victory over the Rightist Opposition and the adoption of the First Five Year Plan in early 1929 brought to an abrupt end considerable original research and analytical work which had been occurring in the VSNKh, Gosplan and the Institute of Economic Conditions since 1921. Beginning in 1928 a series of purges swept thousands of Mensheviks and non-Party experts from their posts in the commissariats and other state agencies regulating the economy. Administrative reorganizations of the state agencies then ensued. By the early 1930s the VSNKh had been reorganized and centralized, and the Institute, as was the case of many similar research organizations, abolished.

Briefly summarizing this overview of the New Economic Policy, it is clear that the period from 1921 to 1928 was a unique period in the economic history of the USSR. Facing possible political disaster in 1921, the Bolsheviks admitted that their ideals of achieving communism in a backward and underdeveloped country were unrealistic and doomed to fail. Their policies failed to realize that the communism of which Marx wrote required the creation of an industrial economy, a large working class and a high level of political solidarity among the working classes. The Russia in which the Bolsheviks took power was predominantly rural and traditional, and without the support of the peasantry, the regime would not survive. In recognizing the preponderant role of agriculture and that of peasant initiative in the economic life of the country, the New Economic Policy provided the population and economy time to recover from years of war and deprivation. By 1926 gross industrial and agricultural output had more or less recovered to prewar levels notwithstanding rising unemployment, inflation, and an unevenness of growth between industry and agriculture. This recovery laid the basis for an economic advance in industry beyond its 1913 levels. This advance was, however, characterized by growing state involvement and intervention into the private market, a deterioration in trade relations between town and countryside, growing unemployment, uneven industrial growth and the re-emergence of inflationary pressures. These problems spoke of an economy which was still very much mired in backwardness and underdevelopment. While encouraging the economy to revive from its moribund state in 1921, the NEP challenged the role of state organs to regulate the economy and forced them to adapt to the vagaries of a mixed economy. Thousands of non-Party specialists were employed by these state institutions to study and analyze the evolution of the economy. The result was a veritable explosion in the amount of original research and discussion devoted to economic development.

End Notes

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3. Alexander Baykov, The Development of the Soviet Economic System (Cambridge: Cambridge University Press, 1970), Reprinted, p. 49.

4. Ibid., p. 51.

5. V. I. Lenin, Collected Works, Volume 33: August 1921-March 1923 (Moscow: Progress Publishers, 1973),Second printing, pp. 156-158.

6. Sheila Fitzpatrick, The Russian Revolution (Oxford: Oxford University Press, 1982), pp. 87-88, and for additional information on foreign concessions see Simand Ziyad, State Capitalism in Russia (New York: Research Department of the Foreign Policy Association, 1926), Information Service Supplement, No. 2, pp. 26-30.

7. N. Valentinov (Volsky), Novaia ekonomicheskaia politika i krizis partii posle smerti Lenina (Stanford: Hoover Institution Press, 1971), Chapter I: Rozhdenie NEP'a i "Liga nabliudatelei," pp. 1-27. Members of the League of Observers were V. G. Groman, economist-statistician; Professor L. B. Kafengaus, head of the statistical section of VSNKh USSR; N. V. Valentinov-Volsky, editor of Torgovo-Promyshlennaia Gazeta, organ of VSNKh; P. N. Maliantovich, prominent Moscow lawyer; E. L. Smirnov (Gurevich), influential collaborator in the Marx-Engels Institute; V. A. Levitskii, well known Moscow physician; V. N. Maliantovich, Moscow lawyer; Maria V. Maliantovich, wife of V. N. Maliantovich; and Professor Bukshpan, economist.

8. Nikolai Valentinov, "Non-Party Specialists and the Coming of the NEP," Russian Review, Vol. 30, April 1971, p. 155.

The report of the League of Observers, entitled "The Fate of the Basic Ideas of the October Revolution" (Sud'by idei oktiabr'skoi revoliutsii), listed nine precepts of the October Revolution which brought the nation to economic ruin and political bankruptcy.

9. Valentinov, Non-Party Specialists and the Coming of the NEP," p. 156.

10. See "Rol' i zadachi profsoiuzov v usloviakh novoi ekonomicheskoi politiki" in Odinnadtsatyi s"ezd RKP(b): mart-aprel' 1922 goda. Stenograficheskii otchet (Moscow: Gospolitizdat, 1961), pp. 534-535.

11. Valentinov, "Non-Party Specialists," p. 160.

12. Alec Nove, An Economic History of the USSR (Harmondsworth: Penguin Books Ltd., 1975), p. 94.
In 1926 coal, steel and pig iron production were at 95.2%, 74.3% and 57.9% of their respective 1913 levels.

13. S. A. Pervushin, "Cyclical Fluctuations in Agriculture and Industry in Russia, 1869-1926," Quarterly Journal of Economics, Vol. 42, August 1928, p. 590.

14. Naum Jasny, The Soviet Economists of the Twenties (Cambridge: Cambridge University Press, 1972), pp. 26-27.

15. Maurice Dobb, Soviet Economic Development Since 1917 (London: Routledge & Kegan Paul Ltd., 1966), Sixth edition, p. 152.

16. Nove, An Economic History of the USSR, p. 115.

17. Ibid., p. 95. Also refer to I. A. Gladkov, Sovetskoe narodnoe khoziaistvo v 1921-1925 gg. (Moscow: Akademiia Nauk SSSR, 1960), Table 76, p. 413.

18. V. A. Bazarov, "K metodologii izucheniia denezhnoi emissii," Vestnik sotsialisticheskoi akademii, no. 4, 1923, p. 29. Cited in Alec Nove, Economic History of the USSR, p. 91.

19. Alexis Goldenweiser, "Banking and Currency Reform in Russia," Journal of Political Economy, Vol. 33, 1925, Table III, p. 239.

20. Jasny, The Soviet Economists of the Twenties, pp. 25-26.

21. These figures for pig iron, steel and coal production for the years 1925-1928 are taken from Nove, An Economic History of the USSR, pp. 94 and 146.

22. Refer to A. A. Santalov and Louis Segal (eds.), Soviet Union Year Book 1929 (London: George Allen & Unwin, 1928), pp. 21-22. Below is produced the table for estimates of population (in millions) for the period 1925-1929:

Date	Urban	Rural	Total	Annual Increase
January 1, 1925	23.2	116.8	140.0	-
January 1, 1926	24.5	118.7	143.2	2.29%
December, 1926 (census)	26.3	120.7	147.0	2.65
January 1, 1928	26.9	122.7	149.6	1.77
January 1, 1929	28.3	125.5	153.8	2.87

During this reporting period urban population increased on average by almost 22 percent and rural population rose by almost 8 percent.

23. Dobb, Soviet Economic Development Since 1917, p. 190.

24. Ibid., p. 189.

25. Refer to footnote 26 for the corresponding figures of urban and rural population increases.

26. E. H. Carr and R. W. Davies, Foundations of a Panned Economy, 1926-1929, Volume One, Part I (London: MacMillan & Co., 1969), p. 375.
A. M. Ginzburg made this remark in a report at a conference of industrial trusts and syndicates held in Moscow in November 1926.

27. Nove, An Economic History of the USSR, p. 97.

28. Carr and Davies, Foundations of a Planned Economy, 1926-1929, Volume One, Part II, pp. 844-845.

29. Ibid., p. 802.

30. Ibid., pp. 802-803.

31. N. D. Kondratieff, "The Conjuncture Institute at Moscow," Quarterly Journal of Economics, Vol. 39, 1924-1925, pp. 320-324.

32. Ibid., p. 324. The Institute exchanged its publications with several scientific organizations abroad, notably the International Institute of Agriculture in Rome, the University of Kiel, the International Institute of Labour and the German Statistical Bureau.

CHAPTER THREE

TOWARDS A PHILOSOPHY OF ECONOMICS

The analysis of economic events, by its very nature of dealing with questions of how people behave at a given moment and of the economic effects their behavior produces, is invariably coloured by the general environment of thought of the times in which one lives. Clearly, it is a product of the intelligence, training, experiences and interests of the observer. When Groman, Bazarov, Ginzburg and Kondrat'ev took up their respective posts in Gosplan, the VSNKh and Narkomfin in the early 1920's, they brought with them a wealth of personal experience, interests, political attitudes and above all an earnest desire to understand their changing world. This quest was heightened by an intense philosophical debate on the nature of Marxism and scientific method. From this debate they drew particular conclusions about the nature of the world which led them to adopt a certain approach of viewing the economy and its future course of development.

A. The Economists

When the Bolsheviks overthrew the constitutional government headed by Alexander Kerensky in October 1917, Groman, Bazarov and Ginzburg were veteran political activists in the revolutionary movement. Kondrat'ev, on the other hand, a young man of 25 years, had little experience as a political activist. These experiences, as we shall see, gave their ideas on economic development and planning a very distinctive coloration.

Groman, the most senior of the four, was a statistician by training (graduated from university in 1908, although his studies began in 1897). Exiled to the Vyatka guberniya in 1897 for political agitation, Groman became active in the zemstvo organization as a statistician and in the statistical bureau of the Vyatka guberniya zemstvo.[1] While there he developed a method, which he called "topology". It entailed the analysis of material obtained by the surveys of the bureau.[2] On completing his sentence in 1901 he moved to Simferopol in the Crimea to work as the assistant chief of the guberniya statistical bureau. Shortly thereafter he was arrested and exiled to eastern Siberia. Returning to Moscow in 1905, he published several works on peasant life under the pseudonym V. Gorn. In 1909, at the insistence of the eminent Professor N.A. Kablukov, he accepted the post of chief of the statistical bureau of the Penza guberniya zemstvo. There he met Alexander Bogdanov, a leading Bolshevik, who introduced him to the idea of the economic whole[3]. From this idea he developed a method of surveying all branches of economic life statistically by a combination of samples of different sizes.[4] By the end of 1914 he returned to Moscow as a member of a committee to study the effects of rising food prices. In 1915 he became the leading member of a Special Committee on Food. Following the overthrow of the Tsar in February 1917 Groman was nominated chairman of the Food Commission of the Petrograd Soviet. There he proposed, in an attempt to curb the inflationary spiral of food prices, the establishment of a commission which would draft a

'Unified Plan' to regulate the national economy.[5] This enthusiasm for central planning, as Naum Jasny, a colleague of Groman on the Food Committee, remarked later, "sprang mainly from descriptions of the central regulation of the German economy during World War I by I. Larin."[6] After the October Revolution Groman's enthusiasm for central planning became fanatical. As head of a committee charged with the distribution of consumer goods in Petrograd, he allegedly declared:" I shall not distribute a single pair of shoes until the national economy as a whole has been regulated."[7] This obsession with planning soon gave way to a deep disappointment during the years of the civil war. When he joined Gosplan in 1922 as a statistician, his natural interest with and training in the statistical analysis of plan drafting re-emerged and led him to become Gosplan's principal proponent of its annual Control Figures and of a methodology of plan compilation.

Bazarov, on the other hand, was a more philosophically inclined individual. Following his expulsion from Moscow University for revolutionary activities in 1897, he settled in Tula where he became active in the Russian social democratic movement with A. Bogdanov and I. Skvortsov-Stepanov. Expelled from Tula in 1899, he spent some time abroad, returned to Russia and became a member of the Moscow Social Democratic Committee in 1901. After a three year exile in eastern Siberia, he joined the Bolshevik faction, wrote for both its legal and underground publications, and became a member of the editorial board of the Party's chief publication. In 1904 the first exposition of his philosophical and political views was published as "Authoritarian Metaphysics and Autonomous Personality." It drew its inspiration from the philosophical thought of Ernst Mach, an Austrian physicist. This particular philosophical view, under the influence of Bogdanov and Skvortsov-Stepanov, advocated a form of positivism, that rejected many of the precepts of Marx's dialectical materialism, principally the objectivity of the laws of causation[8]. The expulsion of Bogdanov from the Bolshevik faction in 1909 for these philosphical ideas led to Bazarov's eventual political disillusionment with the ideas of the October Revolution. In late 1917 he moved to Kharkov to write for several Menshevik publications. In 1922 he joined Gosplan and there he developed a close friendship with Groman, drafting Gosplan's annual Control Figures.

Ginzburg, like Bazarov and Groman, was a veteran revolutionary. From 1897 to the outbreak of WWI, Ginzburg was politically active in the social democratic movement, first as a member of the Vitebsk social democratic organization and later as an organizer among Russian factory workers in various cities of the Ukraine and Belorussia.[9] With I. Vilenskii, another revolutionary from Vitebsk, Ginzburg founded the Menshevik journal Iuzhnyi rabochii (Southern Worker) in 1899. Arrested and jailed in 1902, Ginzburg escaped in 1905 to St. Petersburg to participate in the revolution. There, in 1907, he worked in the machinists union. While at the Central Bureau of Unions in 1909 he wrote his first major work on labour.[10] The following year he was arrested and expelled from St. Petersburg. By 1912, he appeared in Kiev and wrote under the pseudonym of Naumov for the Kievskaia mysl', (Kievan Thought), a liberal democratic daily until he became deputy mayor of Kiev in 1917. After a term of one and a half years as deputy mayor, in 1919

Ginzburg became an administrator and organizer in the consumer cooperative movement in Kiev. In 1922, he joined the VSNKh and was given the post of deputy head of the economic division. His experiences in administrative and organizational work, and ability to approach a problem in a systematic way became known to Felix Dzerzhinsky, the head of the VSNKh at that time, who expressed his satisfaction with having Ginzburg on his staff.[11]

In contrast, Kondrat'ev was not a political activist in his formative years. His early years were spent studying under Tugan-Baranovsky, the Russian economist who had examined the nature of industrial crises in British industry.[12] Writing in 1923 about Tugan-Baranovsky, Kondrat'ev, the student, reminisced about the "strenuous mental work, the intellectually surging excitement" which his teacher gave to his circles of and seminars on political economy and economics.[13] In March 1917, at the age of 25 years, he became the Deputy Minister of Food responsible for providing the peasants with industrial consumer goods. Following the fall of the Kerensky government in October 1917, Kondrat'ev retreated from the political scene to work in the Moscow Agricultural Academy. There he studied agricultural production and the nature of business fluctuations. The results of this research appeared in his first major work, The World Economy and Its Condition During and After the War. This work contained the first sketches of his theory of long cycles and his impressions of the dramatic developments occurring in the world economy during the war. In 1920 at the insistence of several professors at the Moscow Agricultural Academy and inspired probably by his teacher's example of the establishment of an

Institute for the Study of Economic Cycles in Kiev in 1918[14], he helped found the Institute of Economic Conditions. There for the next eight years of his professional career he conducted research on business fluctuations and participated in discussions on the development of Russian agriculture.

These experiences, in many respects very similar and in other ways very disparate, led these men to develop a common view of economic development and of the changing course of the Soviet economy under the NEP. Groman, the statistician and a long-time observer of Russian peasant life, saw in the development of a balance sheet of the entire economy a means through which to analyze statistically the ever changing Soviet economy. This analytical approach of viewing the economy as a whole appealed to the more philosophical Bazarov, who saw the objective and apolitical approach as a practical application of his positivist view for describing and understanding the coexistence and succession of observable phenomena. For Ginzburg, drawing on his experiences in organizing industrial workers, the statistical approach of analyzing the economy as a whole led him to emphasize the need for a rational development of industry. This development would be undertaken on the basis of a realistic appraisal of the conditions under which industrial productivity and growth could be increased. The idea of economic planning was a natural application of his experiences in administration. Kondrat'ev, influenced by the great Tugan-Baranovsky's research on business cycles and capitalism saw the economy as a long-term dynamic process in which its development was a function of both past and current trends. An internal harmony or equilibrium existed within the economy itself. These ideas, products of their own experiences and training, prompted them to develop an approach of viewing the economy as a whole and to advocate particular policies for the modernization and development of the backward Soviet economy under the NEP.

B. Philosophical Debate on Marxism and Scientific Method

While Groman, Bazarov and Ginzburg shared a common political past as Mensheviks and former members of the Russian social democratic movement, Kondrat'ev's political views suggested that he was more a supporter of the Kadets (constitutional democrats). This section, however, is not meant to discuss the political views of these men, but rather to briefly discuss the major issues of a philosophical debate on Marxism and scientific method, which occurred from 1924 to 1929. The debate centered on the question of continuity or discontinuity in the organization of nature. Did nature evolve continuously so that its development followed a succession of stages from lower to higher, and that each stage was a product of what had occurred before? If so, was it possible to determine the organization of nature and that of observable phenomena by reducing them to their simplest components? From this, could one then discern the existence of fundamental laws governing the behaviour of society and living matter? These were some of the questions that this philosophical debate over dialectics and scientific method sought to address.

The origins of this philosophical debate sprang from the failure of Marx and Engels in their analyses of capitalism and sociological approach to history to draft an outline of a future collectivist society and economy. In the NEP years this led to a marked difference of opinion among Marxists over the issue of determinism and freedom in social and economic life. At the heart of this was the question of whether it was possible to reduce natural phenomena to its simplest terms and to discover the fundamental forces shaping them and the universe. Those arguing for such a reduction, the so-called "mechanists" drew on the ideas of French and British positivists and Newtonian physics. They considered it necessary and possible to seek such a reduction as the chief task of scientific analysis, to reduce the complex to the simple and explain the former in terms of the latter.[15]

This ability to reduce complex phenomena to its simplest components assumed that the nature of matter and motion was continuous. Matter consisted of some final and indivisible element. All organic and social phenomena possess the same ultimate elements and laws that govern their behaviour.[16] These laws motivating living matter can be reduced to simpler physio-chemical laws, which can be further analysed in terms of the simplest laws of mechanical motion.[17] Motion is seen as a continuous process, which, once commenced, would proceed until its energy was expended. In short, for matter and motion in nature, there exists a beginning and an end, a starting point and a destination.

These assumptions about matter and motion questioned the basic premise of Marxian dialectics, that all natural and social phenomena is a product of inner contradictions and tensions. To the mechanists, opposition existed only as a result of a struggle of two independent forces pitted against each other. There are no internal contradictions, only conflict and antagonism, external forces which act to create disequilibrium. An exclusion of opposites occurs, a thing is either one or the other, it is either subject or object.[18] Hence only an interaction of life with its environment exists, a conflict of two forces, the inner and the outer, which strive to establish an equilibrium.[19]

This interaction of life with its environment can be only quantified and determined objectively. To the mechanists all qualitative differences are subjectively conditioned and socially agreed upon, such that "good" and "evil", "life" and "death" become purely relative qualities.[20] The defenders of dialectical materialism, the "dialecticians", considered qualities and values like "good" and "bad", though they presupposed a social relation, to have an objective basis which one could call "good" or "bad".[21] Such relatives, maintained the mechanists, cannot be objectively defined for there is no possible quantifiable manner by which to define them. It is only the objective nature of things, which can be determined, only the emphasis on bare facts which must be considered.[22]

Another contentious point in this debate between the mechanists and dialecticians centered on the question of causality, of the existence of the accidental and necessity. To the dialecticians, variation is an integral part of the process of becoming in which the accidental can be considered to have a special relationship in the inner development of a given phenomenon.[23] The mechanists denied this view by stating that there is no relationship between necessity and accident. They are two separate events. They do not, as the dialecticians maintained, "interpenetrate, supplement each other and thus contribute towards a new synthesis."[24] The accidental event cannot be defined objectively. It is considered to be indeterminate in that its origins are unkown. Every event and occurrence can be determined and defined by its preceding events.[25] There is no room for chance occurrences or discontinuous leaps in the evolution of things.

Summarizing, the main issues separating the dialecticians and mechanists were their approaches to the ideas of system, force and causality. The original state of the universe in the mechanistic view of things is one of disintegration, wherein material points are connected temporarily by an equilibrium of forces, but a real synthesis cannot be achieved.[26] The whole is a sum of its parts. It is not a phenomenon of organization in which the laws of the whole and the process of quantitative change into quality may lead to a new synthesis.[27] Movement or adjustments in the order of things result from external forces. There is no internal motion or "inner tension" in the system. If force is applied at one point in the system, it is, according to Newtonian laws of physics, transmitted throughout the system to other parts. Systemic dynamics, consequently, are not internally directed but are contingent on the amount of force applied externally. Causality cannot be viewed in terms of its relevance to events at hand, as the dialecticians maintained. Rather, change must be viewed objectively as a product of past events and be linked to them.[28] Thus, the mechanists conceptualize a universe which is objectively, quantitatively and scientifically based in contrast to the dialectical view of a world possessing intrinsic forces which propel it to further evolve.

Coming at a time when the Party was embroiled in a bitter struggle for power, this debate between the mechanists and dialecticians naturally carried great import for future Soviet society. The philosophical debate opened up the question of the nature of the role of the Party and its programme to effect major changes in all segments of Soviet life. The triumph of the dialectic view of the world provided the necessary justification and philosophical rationale for the adoption of a "volunteerist" approach to change. The view of the world as irreducible to particular laws presupposed that each stage of social development was different and independent. States and stages of being, not individuals, carried greater import. The existence of internal dynamics within a system implied the right of man to alter at his discretion the equilibrium existing between himself and his environment. In accepting change as the normative condition of the world, man is provided with the motive to effect changes. The rejection of the mechanist world view and the adoption of the dialectic postulates gave credence to the premise that society and the economic system could be transformed consciously.

C. The "Genetic" School

The debate over the premises of Marxian philosophy and the ensuing generalizations regarding the organization of nature, and the purpose of scientific inquiry replicated itself in a similarly intense debate among economists and planning specialists of Gosplan, the VSNKh and the commissariats over the nature of Marxian economic theory. At the heart of this debate was the nature and purpose of planning for economic development. Should the plan reflect current conditions existing within the economy and thereby strive to maintain harmony among the economy's constituent parts, or should the plan be a purposeful act to change and direct the economy to a new stage of development? In other words,

> . . . should the economic plan be of a prognostical character, i.e., should it be based on the extrapolation of the previous, already known and analysed curves of economic development; or should the plan venture to establish new rates and new proportions of economic development, quite independent of the already observed laws and regularities.[29]

Underlying this debate was a set of assumptions about the nature of economics as a science and the organization of the Soviet economy. Was economics a normative science or was it, as postulated in the philosophical arguments of the mechanistic Marxists and in the works of Skvortsov-Stepanov and Bogdanov, not unlike the physical sciences, a positive science whose task it is to ascertain the existence of certain laws or empirically observable regularities determining and preserving the existing order of things? This naturally led to the question of whether the Soviet economy operated in accordance with observable laws and according to market forces, relative scarcities of factors, rates of return and profitability. Depending on which set of assumptions about the nature of economics one used, the resultant economic analyis was deemed to be "genetic" or "teleological".

In stressing the importance of current economic conditions, the genetic school of thought drew on the theoretical views of the mechanists and the early works of Skvortsov-Stepanov and Bogdanov about the nature of economic science. Economics concerned itself with "historically changing materials" and abstracted from these materials both "laws specific to each particular stage in the development of production and exchange" and a number of "laws concerning production and exchange in general."[30] As a positive science, economics could be likened to the task of the physical sciences. That is, to reduce complex phenomena to its simplest parts, to ascertain the fundamental laws shaping the universe. To claim as did Bukharin and Preobrazhensky in their party manual, The ABC of Communism, published in 1920 that under communism, economic laws and its constructs of money, profit, rent, wages and interest would disappear seemed to cast economics in a normative light wherein man could consciously alter the natural order of things. To Bogdanov, under socialism, commodities, prices, wages and other categories of value, however determined, existed and would continue to exist under communism.[31] In studying economic phenomena

> . . . we must unfailingly employ the conclusions of economic science . . . as the basis in the system of social sciences. In these sciences it plays the same rôle as physics and chemistry in the study of all organic and inorganic processes.[32]

Groman echoed this line of thought and the mechanist argument about the nature of scientific inquiry in a study, which appeared in early 1925 in the official journal of Gosplan. He stated that there exist certain objective laws and observable regularities inherent in the economy. The failure of the Bolshevik regime to remake the economy after 1917 resulted from a profound misunderstanding of these objective laws and their immutability:

> . . . Even revolutions, for example the greatest of all revolutions - the October revolution - cannot change economic forms overnight by socializaton of the processes of production and exchange. Nationalization could not cover all enterprises, and transition to planned distribution could not destroy the free market which continued to exist, even though illegally.
> . . . Objective conditions of the economy, require certain economic forms, processes of production and exchange of goods, and distribution of national income. They cannot be arbitrarily decreed.[33]

Change in the objective conditions of the economy is only possible when one realizes that "the method and the forms of such transformation are dictated by the objective conditions of the society and the hidden objective tendencies of its development."[34] This is to say that such transformation is contingent on one seeing "the whole at all times, that one understands the interrelationships and interdependence of its parts."[35] The whole, to Groman, appears in

> . . . the formulation of empirical laws of the statics and dynamics of the economy, of laws established by statistics with the aid of theorems of political economy . . .
> Clearly, a theoretically established tendency must find its statistical expression in the form of an "empirical law." By the latter we shall understand observable regularities of the existence and the sequence of phenomena, for instance the law of declining mortality associated with the growth of welfare, the growth or decline of yields associated with changes in cultivation, the relation between

> the value of industrial and agricultural output coming to the market, etc.[36]

Clearly, this formulation of empirical laws of statics and dynamics as established by statistics confirmed Bogdanov's view that the statistical method, as a means of investigation, "enables one to see how frequently one or another symptom is met within a given group of phenomena, and to what degree these symptoms are expressed."[37] The method of statistical induction leads one to work from the particular to the general. In so doing, one can construct a picture or model which seeks to illustrate the fundamental laws or ultimate causes. This view is not unlike the reductionist argument of the mechanists for observing natural phenomena.

To Kondrat'ev, in an article published shortly after Groman's inquiry, he noted that it is preferable for one to observe economic phenomena from a dynamic point of view. The dynamic view is more relevant than the static for it causes the analyst to consider

> . . . economic phenomena in the process of changes in their elements and in the inter-relationships of the latter in the course of time, and seeks to discover regularities in the progress of these variations.[38]

The presence of regularities in the variations of economic phenomena results from the quantitative and qualitative changes of the basic elements of the phenomena and in their interrelationships. These changes can be either ~~"evolutionary"~~ or "wave-like" in nature. Evolutionary or non-reversible changes develop in a certain direction and are not subject to repetition or reversion, whereas "wave-like" or fluctuating variations change their direction in the course of time and therefore are subject to repetition and reversion.[39] By means of empirical observations and statistical analyses the investigator can discern the existence of these regular and irregular processes and to view the nature of these processes as a whole.[40]

A similar line of thought appeared in an article by Bazarov published in early 1925. Acknowledging Groman's work on economic conditions, he remarked, in reference to the economic recovery then occurring, that "without a clear conception of the nature of the recovery processes one can understand nothing of our present-day economy."[41] The recovery process should be viewed as a natural and observable regularity:

> Any system of relations having a definite organizational structure, if some external forces have caused the deformation of that system, seeks to regain the state of equilibrium (static or dynamic), provided the deformation is not of such significant extent as to make the system fall apart.[42]

The mechanics of this movement toward equilibrium are applicable to any system of organized relations. The greater the deviation from equilibrium, the more strained are the inner powers of cohesion seeking to restore the deformed system to a state of equilibrium.[43] As the movement approaches equilibrium its rate of speed slackens as the difference between the given state of the system and that of its stable equilibrium diminishes.[44] The state of equilibrium can be not only static but dynamic, and in the latter as with all societal processes there are definite quantitative relationships between the parts of an normally functioning whole.[45]

To these ideas on equilibrium and the existence of definite quantitative relationships between the parts of the whole, Ginzburg added an extra dimension. In an article, appearing in 1928 in Sotsialisticheskoe khoziaistvo (Socialist Economy), he postulated that the nature and organization of the enterprise shaped most industrial activity. Clearly, the enterprise should be viewed both as a determinant of and a microcosm of economic activity:

> To study the economics of industry means to study the economics of the enterprise and the system of socio-economic ties which are linked to it. The forms of industry exist only as forms of the organization of the enterprise. Indeed, the enterprise is not only characteristic of industry but also as well of other branches of economic activity.[46]

This presupposed that the simplest economic unit determined the basic outline of the economy. Global economic changes result from the interplay of forces occurring among and within the smallest constituents of the economy. At this microeconomic level of the enterprise and the farm, definite quantitative relationships between the respective units exist and seek to attain equilibrium levels. These equilibrium levels are in turn reflected at the macroeconomic level. The task of the observer becomes then one of noting changes at the microeconomic level and to extrapolate from them the probable results at a more global level.

The logical conclusion of these arguments by Groman, Kondrat'ev, Bazarov and Ginzburg about the need to observe economic phenomena as a whole through the light of empirical evidence leads to the realization, as Bogdanov and other Marxists noted, that in spite of the socialization of the Soviet economy, the economy continued to obey certain economic laws or postulates about the nature of market forces. The existence of such laws, so went the arguments of Groman, Bazarov, Ginzburg and Kondrat'ev, demanded that the investigator understand their nature and behaviour. The recovering Soviet economy, as an example of fundamental economic forces at work, posed a major task for the investigator. His task "was not solely the classification and qualitative description of what exists but a possible prevision of the future, the quantitative appreciation of developmental trends."[47] In such an attempt to presage economic tendencies in the economy, one is led to Bazarov's conclusion that "economic laws hold sway even in Soviet Russia."[48]

To accept the notion that "economic laws" or market forces hold sway in the Soviet economy means that in any effort to consciously direct the course of the economy one must seriously consider current conditions. Moreover, if economic laws do govern the economy, as Bazarov maintained, then it follows that the trends of the economy cannot be controlled by conscious actions. Such forces are outside the range of human control. If attempts are made to direct the present and future course of the economy's development, one must seriously consider the underlying economic forces at work. This demands that the planner conceive of the economy as

> . . . a harmonious, organic whole-a maximally stable system of mobile equilibrium-not only when the reconstruction mapped by the General Plan has been completed, but at any point in the transition.[49]

Balance is the primary concern and task of the planner. Plans must correlate the objectives of the assignments with the actual resources and potential of the national economy. They must, in other words, be realistic in their expectations of what the economy can produce, its performance and the extent to which changes are instituted to initiate and influencing economic growth. As a genetic construct, the plan, in Kondrat'ev's words, must

> . . . take into account the probable trends of unchanging conditions, our probable resources and opportunities for influencing the course of economic development, and, finally, the probable result of influencing it. It means that we must not only have knowledge of the present in these areas, we must also have a certain amount of forecasting, for only if we do can we speak of the probable trends of our economic development, of our probable opportunities for influencing it, and of the probable results of thus influencing it.[50]

An additional exposition of the plan as a genetic construct comes from Groman, who stated that "the work of the investigator must lead to an elaboration of a system of static and dynamic laws of the economy, mutually determining each other, in which connection primacy must belong to the perceived developmental tendency of the economy as a whole."[51] Concomitant with this primacy of extrapolations of forecasted economic growth is the construction of a balance of the entire economy. A planned economy, he further noted, assumes the construction of such a balance that would show production, distribution, exchange and consumption to be mutually interdependent and organically united.[52] Such a plan becomes an organic balance sheet of all economic activities and their interrelationships.

This concept of the plan as an organic unity was not shared by the "teleological" school of thought, which stressed instead the objectives of the plan. The plan should be regarded more as a means of achieving an explicit objective or goal. This conceptualization as a purposeful act stressed the ultimate goal rather than the means or methods employed in the elucidation and determination of the feasibility of the stated objectives or plan assignments.

Drawing on the theorems of political economy of Marx and Engels, the teleologists viewed the plan as one grounded less in the empirical observance of economic regularities and the existence of economic laws. The study of economic phenomena serves only to justify and establish political policies. Under socialism and communism, such economic concepts as price, wages, profits, and interest disappear, and in their place appears the "active striving of the economists to formulate and concretize the will of the working class."[53] This striving is not unlike the "inner tension" that propels the universe forward, as postulated by the dialecticians. Hence, the task of the socialist economist, according to Strumilin, the leading proponent of teleological school, becomes the following:

> Our task is not to study economics, but to change it . We are bound by no laws. There are no fortresses which Bolsheviks cannot storm.[54]

Instead of examining economic phenomena and extrapolating from the observed results, the plan embodies the idea that events can only be explained and evaluated by the consideration of the goals toward which they are directed. In this light the plan must give

> . . . not a sum of forecasts but rather a system for an economic policy, i.e., a system of economic tasks and directions expressed in figures. These tasks must be realizable provided a sufficient will to realize them is exercised.[55]

The purpose of planning is therefore to "concentrate the will and efforts of the workers and the economists on certain selected objectives."[56] The planner's task becomes one of engineering, of constructing a plan from the top downward. In plan constructions, the guidelines are the suitability of the plan assignments and how they fit in with the stated objective.[57] To base planning on prognostication, so goes Strumilin's criticism of the proponents of the genetic view, the "geneticists", is "to prognosticate whether their plans will be adopted or rejected . . . to obtain scientific forecasts of the probable resolutions of the Council of the People's Commissariats or of the Politburo."[58]

Such criticism aside, the geneticists in drawing on the philosophical arguments of the mechanists and the Bogdanov "school" endeavoured to develop an analytical approach to economic phenomena which stressed the totality of the subject while examining and explaining the underlying forces or causes determining it. This approach considered economic events and the analysis of them in a scientific light. In this way the geneticists sought to develop a rational and empirically based view of the world so to regard processes at work in the economy as part of the whole. In planning, this rational view considered the plan to be a reflection of the existing economic order and so, emphasized the developmental tendencies of the economy. The purpose of the plan was not to consciously change the economy, but rather to forecast economic trends and thus hope to provide production targets in relation to these projections. Contrasting this genetic view was the teleological approach which, instead of examining economic phenomena, sought to justify and establish normative maxims. The plan to them offered a justification for a conscious effort to change the economy and to quantify the role of the State and Party in economic life.

In brief this chapter has attempted to provide some background to the works by Groman, Bazarov, Ginzburg and Kondrat'ev on economic development, growth and planning. By 1921 when the NEP was proclaimed these four economists had already amassed a considerable wealth of personal experiences, interests, attitudes and hopes. As statisticians and economists, they endeavoured to discover certain insights about the nature of economic analysis. Drawing on the philosophical arguments of the mechanists about the nature of the universe, they developed an approach of viewing economic phenomena as part of a greater whole. All economic activity is objectively based and governed by the existence of certain laws or regularities. It is the task of the observer and analyst to discover these laws or regularites and to draw from them certain conclusions about the nature of economic development and the possibility of effecting economic changes. Opposing these genetic concepts was a belief held by Strumilin and others, who drew on a dialectical view of a world propelled by internal contradictions and tensions. They postulated that the nature of economic analysis was not an objective and independent inquiry into the nature of things, but rather should be viewed as a conscious effort to change and to forcefully alter the relationships that exist in the economy and society. Here was the justification for the adoption of particular development strategies, of certain assumptions about economic growth and of a planning approach which would justify the role of the Party in economic life. Groman, Bazarov, Ginzburg and Kondrat'ev could not accept such a view and would in later years be eliminated for their opposing genetic views.

End Notes

1. Naum Jasny, *Soviet Economists of the Twenties*, (Cambridge: Cambridge University Press, 1972), p. 91.

2. Ibid.

3. Betty A. Laird and Roy D. Laird (eds.), *To Live Long Enough: The Memoirs of Naum Jasny, Scientific Analyst*. (Lawrence, Kansas: The University Press of Kansas, 1976), p. 17.

4. Jasny, *Soviet Economists of the Twenties*, p. 92.

5. Ibid., p. 98.

6. Ibid., p. 99.

7. Ibid. This statement according to Jasny illustrated very well Groman's obsession with the idea of a "Unified Economic Plan" in 1917.

8. Ibid., p. 125.

9. Alan Wildman, "Russian and Jewish Social Democracy" in Alexander Rabinowitch (eds.), *Revolution and Politics in Russia* (Bloomington and London: Indiana University Press, 1972), p. 82.

10. *Materialy ob ekonomicheskikh polozhenii i professional'noi organizatsii peterburgskikh rabochikh po metallu*, Petersburg: SPB, 1909.

11. Jasny, *Soviet Economists of the Twenties*, p. 140.

12. First published in 1894, *Promyshlennye krizisy v sovremennoi Anglii, ikh prichiny i vliianii na narodnuiu zhizn'* (Industrial Crises in Contemporary England; Their Causes and Influence on National Life), was described by Arthur Spiethoff, a German economist studying economic cycles, as the first scientific monograph of its kind combining history, statistics and

analysis. See T. W. Hutchison, *A Review of Economic Doctrines 1870-1929* (Oxford: The Clarendon Press, 1953), pp. 377-379.

13. Lubomyr Kowal, *Economic Doctrines of M. I. Tugan-Baranovsky* (University Of Illinois: Ph.D. dissertation, 1965), pp. 14-15.

14. Ibid., p. 26.

15. Julius Hecker, *Moscow Dialogues* (London: Chapman and Hall Ltd., 1934), p. 159.

16. Ibid.

17. Ibid.

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20. Ibid., p. 172.

21. Ibid.

22. Ibid.

23. Ibid., p. 169.

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26. Ibid., p. 28.

27. Ibid.

28. Ibid., p. 30.

29. Adam Kaufman, "Origin of the Political Economy of Socialism," *Soviet Studies*, vol. 4, no. 3, 1953, p. 266.

30. Nicolas Spulber, *Soviet Strategy for Economic Growth* (Bloomington: Indiana University Press, 1964), p. 31. Cited

from Skvortsov-Stepanov, "Chto takoe politicheskaia ekonomiia?" Vestnik kommunisticheskoi akademii, no. 11, 1925, p. 302.

31. Ibid.

32. A. Bogdanov, A Short Course of Economic Science (London: The Dorritt Press, Ltd., 1927) Translated by J. Fineberg for the Communist Party of Great Britain. Second edition, pp. 4-5.

33. V. G. Groman, "O nekotorykh zakonomernostiakh empiricheski obnaruzhivaemykh v nashem narodnom khoziaistve," Planovoe khoziaistvo, no. 1, 1925, p. 88. Translation of parts of this article appear under the title "On Certain Regularities Empirically Observable in Our Economy" in Nicolas Spulber (ed.), Foundations of Soviet Strategy for Economic Growth (Bloomington: Indiana University Press, 1964), p. 361. Further citations from this article unless otherwise noted are taken from the translation in Foundations of Soviet Strategy for Economic Growth.

34. Groman, "On Certain Regularities Empirically Observable in Our Economy," in Foundations of Soviet Strategy for Economic Growth, p. 89.

35. Ibid.

36. Ibid., p. 89.

37. Bogdanov, A Short Course of Economic Science, p. 9.

38. N. Kondratieff, "The Static and Dynamic View of Economics," Quarterly Journal of Economics, vol. 39, 1924-1925, p. 577.

39. Ibid., pp. 579-580

40. Ibid., p. 581.

41. V. Bazarov, "On 'Recovery Processes' in General" in Nicolas Spulber (ed.), Foundations of Soviet Strategy for Economic Growth (Bloomington: Indiana University Press, 1964), p. 283.

42. Ibid.

43. Ibid.

44. Ibid., pp. 283-284.

45. Ibid., p. 284.

46. A. M. Ginzburg, "Noveishee razvitie ekonomii promyshlennosti," Sotsialisticheskoe khoziaistvo, no. 4, 1928, p. 16. This article first appeared as a chapter in his book, Ekonomiia promyshlennosti.

47. Bazarov, "On 'Recovery Processes' in General" in Foundations of Soviet Strategy for Economic Growth, p. 286.

48. Robert V. Daniels, Conscience of the Revolution: Communist Opposition in Soviet Russia, (Cambridge: Harvard University Press, 1960), p. 349. Quoted from V. Bazarov, K metodologii perspektivnogo planirovaniia. (Moscow: 1924), p. 8.

49. V. Bazarov, "On the Methodology for Drafting Perspective Plans" in Foundations of Soviet Strategy for Economic Growth, p. 367.

50. N. D. Kondrat'ev, "Critical Remarks on the Plan for the Development of the National Economy" in Foundations of Soviet Strategy for Economic Growth, pp. 440-441.

51. Groman, "On Certain Regularities Empirically Observable in Our Economy" in Foundations of Soviet Strategy for Economic Growth, p. 364.

52. Groman, "The Balance of the National Economy" in Foundations of Soviet Strategy for Economic Growth, p. 95.

53. S. G. Strumilin, "Industrializatsiia SSSR i epigony narodnichestva," Planovoe khoziaistvo, no.7, 1927, pp. 10-11.

54. Ibid. Quoted in R. V. Daniels, Conscience of the Revolution, p. 349.

55. S. G. Strumilin, "Answer to Our Critics" in Foundations of Soviet Strategy for Economic Growth, p. 454.

56. Ibid., p. 455.

57. Ibid.

58. Ibid.

CHAPTER FOUR

A NON-BOLSHEVIK VIEW OF SOVIET ECONOMIC DEVELOPMENT

In the preceding discussion it was noted that the genetic school regarded economic phenomena in a positivist light. Underlying forces determine all economic events. The task of the observer is to examine these forces at work and from this examination to forecast their likely outcomes or tendencies inherent in the economy. The economy is seen as an organic and dynamic whole, ever changing superficially but internally governed by certain laws or regularities. These regularites, once discerned and analyzed, form the basis on which an economic plan can be constructed. The economic plan or strategy recognizes the stage of development of and existing interrelationships in the economy at that given point in time. These genetic concepts naturally prompted Groman, Bazarov, Kondrat'ev and Ginzburg to make some interesting remarks and conclusions about a particular strategy of development the nation should pursue, the nature of economic growth in general and the appropriate planning procedures to engender economic development and growth.

A. Background

Economic development, by its very nature, proposes major changes in any economy as a whole. It implies the shifting of the economy from one stage of development to a different set of production possibilities. This, of course, has important implications for the internal equilibrium of the economy since economic development is principally a process of change, involving shifts in the internal structure and composition of the economy. The relationships between agriculture and industry and in their respective rates of savings, capital formation, productivity, capital output ratios and so on, must be considered by all countries embarking on a path of economic development. [1]

In the case of the Soviet Union under the NEP the issue of economic development naturally centered on the questions of a strategy for industrial expansion, its rate of growth and by what means this growth should be pursued. These questions first grew out of the "scissors crisis" of 1923-24, a breakdown of market relations between the town and countryside. After 1925 the issue of economic development grew more urgent with the appearance of a persistent shortage of manufactured consumer goods, of a pressing need for renewing capital equipment in industry and of a need to develop a strategy for the introduction of new processes, equipment and industries.[2] These concerns led to an intense debate among economists and the political leadership, over the nature of industrializing an underdeveloped economy.

This debate among the economists naturally centered on the appropriateness of the strategy of industrialization, the tempo this strategy should pursue and how industrialization should be directed. Groman, Bazarov, Kondrat'ev and Ginzburg were active and willing participants in this debate. They were keenly aware of the economic backwardness of the country and were equally imbued with the desire to see that the Soviet economy be developed and possess a more modern and larger industrial base. What concerned them most of all, as proponents and adherents of the genetic view, were the questions of a strategy of balanced development, the maintenance of balanced growth and economic equilibrium, and of the plans for industrialization which would accept the economy's current state of development. They hoped that these policies would strive to minimize many of the deleterious effects a major developmental drive, such as industrialization, would create in the economy during its course of transformation.

B. Strategies of Economic Development

Industrialization, generally speaking, as a strategy of economic development, proposes as its main thrust to build up the industrial sector relative to that of agriculture. Such an expansion of industry strives to raise capital intensity, savings, productivity and capital formation rates. To Ginzburg, Bazarov, Groman and Kondrat'ev it was clear that industrialization would posit a major shift in the internal balance of the national economy. The concern to them rested on which strategy of industrial development would recognize the economy's present stage of development and permit the expansion of industry. Should the nation pursue a major expansion of the means of production, heavy industry, or should light industry, in conjunction with agricultural development be promoted? This question of the choice of strategy of economic development figured prominently in their research and writings after 1925.

Ginzburg's Views on Industrialization

As a leading expert on industry and the chairman of a special commission attached to the VSNKh preparing a five year perspective plan for the economy[3], Ginzburg was perhaps the most ardent supporter of industrialization, of the expansion of heavy industry. In a report read at a conference of VSNKh and Soviet planners in early 1927, he stated that industrialization is at the basis of any perspective plan for the development of industry. Industrialization, he noted—

> . . . presupposes a redistribution of productive forces from agriculture to industry, an increasing accumulation of industrial capital and a drawing of additional labour forces into the sphere of industrial labour. Industrialization means a more rapid increase in the production of the means of production in comparison to the production of the means of comsumption. It is linked thus to an increase in the technical and organized composition of industrial capital and has as its inevitable consequence the penetration of industrial elements into other branches of the national economy.[4]

This view of the redistributive process of industrialization supported Marx's assumption that in the course of economic development agriculture would ultimately be industrialized.[5] Yet, industrialization, Ginzburg cautioned, was not an aim to be pursued blindly. It was a process in which one must consider current economic conditions and the present state of the economy's development. Development must proceed in such a way that the population's wants are satisfied and labour productivity is raised.

Thus, industrialization becomes

> . . . not an end in itself but a means of the realization of more general socio-political aims facing the Soviet government. Industrialization is a general process. Its course is determined by a series of objective economic and socio-political conditions. The first group of these conditions is linked to the necessity of adjusting to the needs of national consumption. The immediate task in the development of industry under Soviet conditions is to satisfy the basic demands of the population. For this reason the size of production must correspond to the possible growth of consumption. The second task amounts to a more productive utilization of the present labour force.[6]

This appeal for a more reasoned approach to the question of economic development came at a time when the economy was beginning to show serious economic stresses. By satisfying the basic demands of the population, industry then could actively organize new enterprises and improve existing ones for the purpose of expanding the capacity of the market place.[7] Higher labour productivity would result and increase the purchasing power of the population.

Consumer satisfaction and higher labour productivity would also be possible if the distribution of industrial enterprises were more geographically dispersed and located closer to their sources of supply and demand. This idea appeared in an article in 1926 in which he noted that the economic geography of the USSR was characterized by the "presence of a few large industrial regions, which stand out as large black spots on the economic map of the country . . . no one region can completely meet its local demand from its production and each region has to hand over a share of its output to other regions."[8] To remedy this, the construction of new enterprises outside of the major centers should be closer to their sources of raw materials and demand. The result would create a more active link between all districts of the country and a closer correspondence by industry to the actual needs of the population. This would also enable industrial enterprises to be more attentive to the specific features of the region and its natural wealth. Much of light industry, cotton textiles in particular, could be based in the producing regions rather than near Moscow and other major cities.[9]

It is interesting to note that in this view of catering to consumer demand and improving labour productivity, private capital can play an important role in economic development. Drawing on the conclusions of the OSVOK committee, Ginzburg, in May 1926 in Economic Review, noted that despite its small share of overall investment and its struggles to survive against state interference, private capital continued to exist largely because of an imbalance between industrial production and demands of a growing agriculture.[10] Private capital survived because the state and cooperative trading networks were poorly organized and inefficient. In this, Ginzburg saw a role for private capital. It could play the role of a small-scale organizer of production so long as state and cooperative industry lacked the resources and organization of doing business by their own means.[11] Positing the role of private capital as a bridge over the gaps of the state-owned economy, the campaigns against private capital should be viewed, wrote Ginzburg, as struggles to wring out inefficiencies in the state economic system.

So long as such inefficiencies existed private capital should continue to serve in its role as an efficient organizer and distributor:

> The weaknesses and deficiencies of the state and cooperative system serve as one of the chief causes of the growth of private capital. Therefore the supplanting of private capital depends above all on the domestic consolidation and improvement of the work of the state and cooperative system . . . The task is not to reduce the absolute sizes of private capital but to strengthen the capacity of the state economy. The struggle with private capital has to be therefore first and foremost a struggle for the improvement, consolidation and normalization of the state economic system.[12]

This attitude toward economic development affirmed a desire for a strategy of balanced development. Industry can be developed at a faster pace than that of agriculture, but this should not be the sole concern in the country's development. The crux to Ginzburg, and to Bazarov, Groman and Kondrat'ev, as we shall see, was that any development plan for agriculture or industry must be predicated on understanding the general conditions existing in the economy.[13]

The Menshevik Programme of Bazarov and Groman

Bazarov and Groman did not dispute Ginzburg's view that the expansion of the industry must be based on meeting the demands of the population. Any strategy for the development of the country must take into account the economic and cultural backwardness of the country, the perennial shortages of capital, low labour productivity and the need to find employment for the surplus population. To industrialize,

> . . . given our cultural backwardness and the limited material resources which we can earmark for reconstruction purposes, makes it imperative that in carrying out industrialization we follow a strict system with respect both to the types of new enterprises to be set up and to the priority to be awarded to them.[14]

This priorization would be guided by the objective economic conditions existing in the country and by the need to improve the economic position of industry through rationalization, i.e., the scientific organization of labour, the speeding up of machinery operation, specialization, and electrification.[15] The guiding principle of industrialization must, in Bazarov's words,

> . . . be the attainment of maximum efficiency - in regard to physical volume of output, labour productivity, and involvement of new manpower in production while a minimum is spent on capital construction.[16]

This is to say, industrial expansion must initially be oriented to satisfying demands for consumer goods and the wants of the population. To follow a contrary course would lead to the development of industry which would be characterized by new enterprises which "having absorbed a huge aggregate of capital outlays, would drag out a sickly existence, suffering endless 'infantile disorders' and putting on the market an insignificant quantity of goods of very low quality produced at very high cost."[17] The nation would have wasted valuable capital on constructing an inefficient and unproductive industrial base.

The basic criterion for industrial expansion therefore must be the construction of "industries producing consumers' goods and those kinds of producers' goods for which something like mass demand already exists."[18] The construction of such industries must be oriented toward agricultural development. Future growth must invariably come from the agricultural sector and its development such that:

> Only by amply supplying the village with good industrial products at very low prices is it possible to create a real impulse toward the development of our backward agriculture, which is the fundamental basis, and in its present form the chief obstacle to economic growth of the country. Without this no amount of expenditure on agricultural production, no amount of development in the enlargement of pedigree livestock, better sowing techniques, and machinery, no amount of agricultural knowledge and preaching will yield substantive results...[19]

Agricultural development could be realized with the expansion of peasant industries. The expansion would be possible with very small amounts of capital investment. These capital investments would increase the supply of consumers' goods, and raise labour productivity. Under such an investment policy, development would also bring with it the "tremendous social and cultural significance of introducing industrialization in its most refined forms into the peasant or semi-peasant environment."[20] Moreover, the policy would "hold fast the agrarian population in place while increasing the profitability of agriculture and spread in the very countryside those lines of industry, which can be combined with agriculture."[21]

In early 1928 Bazarov in an article reiterated the need for a balanced approach to industrial development. So long as industry did not possess a firm and broad enough base within the country, "it would be preferable to purchase essential products abroad or grant concessions to foreign capitalists."[22] In other words, it was imperative that the nation conserve all available resources and effect their utilization in the most efficient way possible. If this meant relying in part on foreign capital to make industrialization proceed faster, then "the faster shall we achieve that emancipation," the emancipation from the dependence on other countries that "is due not to any 'natural causes' but to the exceptionally low level of our material development, to the underindustrialization of our country. . . ."[23]

Groman, as Bazarov's closest colleague and collaborator in Gosplan, concurred with Bazarov's assessment and approach. In a paper presented to a conference on the Control Figures for 1927/28 held on 29 June 1927, Groman stated clearly his agreement with Bazarov's criteria for industrial development and added one proviso:

> These criteria were formulated by comrade Bazarov thus: the optimal combination of the development of productive forces, the growth of the well-being of the working masses and the development of socialist forces of the economy. I used always to add: concern for the maintenance of a dynamic equilibrium in the national economy, which requires a balanced development of its components.[24]

As early as 1923, Groman noted that economic development had to be guided by a concern for economic balance. For the state "the operative principle of correlation and proportionality must guide the planning organ and all departments must be led by its direction."[25] This was a mild admonition of the State's economic policies which were at that time creating a serious price discrepancy between industrial goods and agricultural products. Writing on the recovery process in agriculture and industry in 1925, he further remarked that the relationship between agricultural and industrial output levels could go beyond the prewar 37/63 ratio only if the industrialization of the country was accompanied by reduced industrial unit costs.[26] This concern for balance he reiterated in late 1926, stating that a national balance sheet should be drawn up. Its construction would "make it possible to express the mutual interconnections of branches and social forces of the national economy."[27] By the middle of 1928, however, his concern grew ever more urgent as the economy began to labour under a growing goods trade imbalance, resulting from a forcing of industrial growth at the expense of agriculture.

The Menshevik programme, so called by Naum Jasny,[28] rested on the basic premise of balanced development in all sectors of the economy. The natural wealth of the country and its economic backwardness necessitated a balanced approach toward the development of agriculture and industry. This recognized the fact that delicate and uneasy relations existed between industry and agriculture. For Groman and Bazarov this uneasy state of economic affairs required a practical solution, namely to allocate scarce capital to the development of industries which could best supply the immediate demands of the population, promote the modernization of agriculture and in time lay the basis for future industrialization.

Kondrat'ev's Views on Development

The notion of balanced growth and the maintenance of equilibrium in the national economy figured prominently also in Kondrat'ev's scheme of economic development. While industrialization was a laudable goal for economic development, emphasis, however, should be placed on agricultural development. In this respect he differed from his colleagues.

As an economist and researcher in the Institute of Economic Conditions, Kondrat'ev was keenly aware of the position of Russian agriculture, its importance, strengths and weaknesses. In a report read to the Commission of Industry Conjuncture in the VSNKh in early 1924, he noted that historically the development of Russian industry depended on a concurrent development of agriculture and market relations. This simultaneous development of both sectors could be expected to continue as long as market relations existed:

> Under conditions of market relations the development of industry finds itself strictly dependent on the development of agriculture and conversely the development of the latter is dependent on the development of industry . . . as the development of agriculture was and is now observed to be not only linked to the growth of the domestic market but it is especially linked to the growth of the external market for agricultural products, conversely Russian industry developed and is developing mainly in connection with the development of the domestic market.[29]

This linkage of agriculture and industry to the development of the domestic market underscored his preference for market forces as the principal mechanism engendering the development of the national economy. Industrial development could not be undertaken so long as the trade relations between agriculture and industry remained underdeveloped. The problem of industrial development, noted Kondrat'ev, relied essentially on the ability of the domestic markets for manufactured goods and agricultural products to expand.[30]

In a report read at a plenary session of the Presidium of Gosplan in early July 1925, and summarized in an article appearing in Planned Economy in August, Kondrat'ev outlined the causes for the low growth in agriculture. Lack of capital, backward cultivation techniques, state policies, unstable market conditions and a lack of trained agricultural specialists conspired to keep the purchasing power of the agricultural population low and to mitigate against further agricultural development.[31] Only with the development of the commodity trade in the economy, the introduction of a new technical base in agriculture and the growth of regional differentiation, can "we . . . truly on the one hand raise the purchasing power of agriculture and the possibilities for exports, while on the other hand, truly lead the economy in the direction of a quantitative growth and internal reconstruction."[32]

To Kondrat'ev, agriculture should be considered the major priority in the national development strategy. Due to a barrage of criticism from opponents, he reluctantly accepted the importance of industrial development. His reticence about industrial expansion centered on how such expansion should be undertaken. If industry was to be expanded artificially by credit, then this growth of the national economy would create inflationary pressures, lead to a break in the relations between industry and agriculture and in the final analysis result in an industry dependent on state largesse for survival.[33] This scenario he feared for it would be far better for the nation to concentrate its energies on agricultural development.

One possible avenue for agricultural development to Kondrat'ev lay in the growing differentiation occurring in the countryside among the peasant class. In 1925 and 1926, good harvests and an official policy of tolerating the more enterprising elements of the peasantry led to the emergence of a class of richer peasants. The emergence of this richer peasant, better organized and financed than most, according to Kondrat'ev, offered a way out of the primitive inefficiency of peasant agriculture. They were the best equipped and the most efficient who brought a higher proportion of their grain to the market to feed the towns and cities.[34] Encourage these more enterprising peasants and it would be possible to counteract the inertia of an atomized village agriculture.[35] To remedy the inefficiency of the small peasant holdings, state assistance could be made available to the "lower groups of households . . . without any threat to the productive forces of agriculture, pull the lower groups upward."[36] In so doing, agricultural production and exports would be developed as a first priority to pay for imports of industrial equipment.[37]

In recognizing the historical and contemporary development of Russian agriculture, Kondrat'ev considered agricultural development to be the pressing issue in his strategy. The low purchasing power of the farm population, the scarcity of capital and the existence of an atomized farming system of land holdings necessitated an approach favouring development of agriculture. By promoting the modernization, rationalization and capitalization of agriculture under a market mechanism would, to Kondrat'ev, bring about a more healthy development of industry and of the country as a whole.

It is worthy to note that the above strategies of economic development of Ginzburg, Bazarov, Groman and Kondrat'ev shared a common concern. Economic development must recognize the present set of the nation's production possibilities. While industrial development is necessary to recapitalize and modernize the present industrial sector, any strategy advocating the development of heavy industry without much concern for the consumer demand is a proposition which could lead to gross inefficiencies, a waste of scarce resources, dislocation and disorganization. The satisfaction of the basic demands of the population implied the recognition of two facts. First, the economy possessed few pools of capital surpluses. Secondly, to accumulate these necessary pools of capitel and savings required a gradual and measured approach to the development of all major sectors of the economy. Only by such measures could industry and agriculture raise their productivity, savings rate, levels of capital formation and capital output. This would permit the Soviet economy to develop at a higher rate of growth and operate more efficiently.

C. Economic Growth

Underpinning the respective strategies of development advocated by Groman, Bazarov, Ginzburg and Kondrat'ev was a fundamental premise about the nature of economic growth and its rate over time. The premise affirmed their belief that economic growth, as a measure of change in national income, capital accumulation and output, would over time experience a declining trend. This belief refuted in part the classical economic notion, which was embedded in Marxist economic theory, that industry under the influence of technological innovation, greater capital intensity and higher levels of productivity, operated according to the principle of constant or increasing returns to scale.[38] Drawing on their observations of a recovering economy, Groman, Bazarov, Ginzburg and Kondrat'ev postulated that economic growth rates, while impressive in the initial stages of economic recovery, could not be assumed to continue to trace such a path indefinitely. Once the economy recovered to previous levels, output and capital accumulation growth rates would naturally return to levels more indicative of past historical trends in Russia. These ideas carried broad implications for the question of Soviet economic development and the appropriate path of development the nation should pursue.

The Theory of the "Diminishing Curve"

The clearest expression of the nature of economic growth in the short-run came from Groman and Bazarov in the postulate of the "diminshing curve" (potukhaiushchaia krivaia).[39] It was assumed that the rapid rates of growth experienced in the recovery of the Soviet economy since 1921 could not be indefinitely maintained. In articles published in early 1925, both economists expressed the idea of declining economic growth rates as the logical consequence of the

Soviet economy approaching its former prewar production levels. Groman, for example, believing to have found a regularity in the price relationships between agriculture and industry, remarked that these relationships would recover to their prewar 37/63 ratio. Bazarov constructed a theorem about the nature of economic growth in the short run. He postulated that the course of the economic recovery was akin to a smooth declining curve. The closer the economy approached its equilibrium, the slower would become its rate of growth. Both versions of declining growth rates in the short run were attempts to depict and in the case of Groman to presage the course of the economic recovery.

In "On Certain Regularities Empirically Observable in Our Economy," appearing in the first two issues of Planned Economy, Groman formulated his version of declining short-term growth rates on the basis of four propositions: an increasing utilization of productive forces, a proportional development of all sectors of the economy, rising living standards and more favourable State economic policies. From these bases, Groman observed two basic regularities about the recovering Soviet economy:

> . . . the first, concluding that agriculture weakened less than industry, but then recovered less than the latter; the second is that the relation of the value of agricultural and industry goods to the total value of all goods commodities is approaching its prewar relationships (37% and 63%).[40]

These two observable regularities of the economic recovery stated that the civil war had affected differently agriculture and industry. Agriculture, due to the primitiveness of its production process, the direct connection of the existing population to the results of production and the indestructibility of its basic means of production, suffered less overall damage.[41] Production fell much less than was the case in industry, and when the recovery process commenced, agriculture was first to recover. The simple technological base of agriculture did not require a high rate of growth to return production to pre-crisis levels. As soon as underutilized production factors, land and labour, were brought back into use, growth slowed. Industry, on the other hand, according to Groman,

> . . . consisting of production conglomerations, loses its productive capacity through the spoilage, destruction or temporary lack of even a few elements. The rapid recovery in industry is explained namely by the fact that only a few elements were ruined, the majority of them however remained almost intact and with the reconstruction of a small number of elements a huge quantity of productive forces were brought into motion.[42]

This complexity of productive forces naturally favoured industry. Once necessary equipment repairs were made, raw materials obtained, and a measure of organization and discipline in the production process was restored, industrial production responded very quickly. As other segments of the economy approached prewar production levels, an additional impetus would be given to industrial growth rates.

As industrial production recovered, Groman noted, the price relationship between agricultural and industrial products would return to its prewar ratio of 37/63. With a "much faster rate of growth," writes Groman, "than in agriculture, we thus undoubtedly move closer to the prewar relation of the levels of agricultural and industrial prices."[43] This movement toward the prewar ratio of 37/63 is "in keeping with the changes in the conditions of unit costs."[44] As industry attains "a greater utilization of fixed capital, a better organization of the production process and consequently a reduction in unit costs," it is natural that these price relationships would return to previously established ratios.[45]

It is questionable, however, whether the price relationship between agricultural and industrial products would return to the 37/63 ratio, as expressed by Groman. It should be noted that this ratio of value of the outputs of the two sectors was in line with Groman's postulate of an inherent equilibrium condition for the economy. Perhaps this ratio served to remind him that the economy under the NEP had not fundamentally been altered by the 1917 Revolution. The underlying production relations between agriculture and industry remained more or less intact. Agriculture was still the mainstay of the majority of the population. Industry, too, had not appreciably changed its structure or role in the economy as a supplier of manufactured goods to the rural population. Hence, as the recovery became broader and involved both sectors, it could be assumed, as Groman perhaps did, that the economy would once more return to previously established relationships. Growth rates in both sectors would decline to levels more in keeping with previous prewar levels.

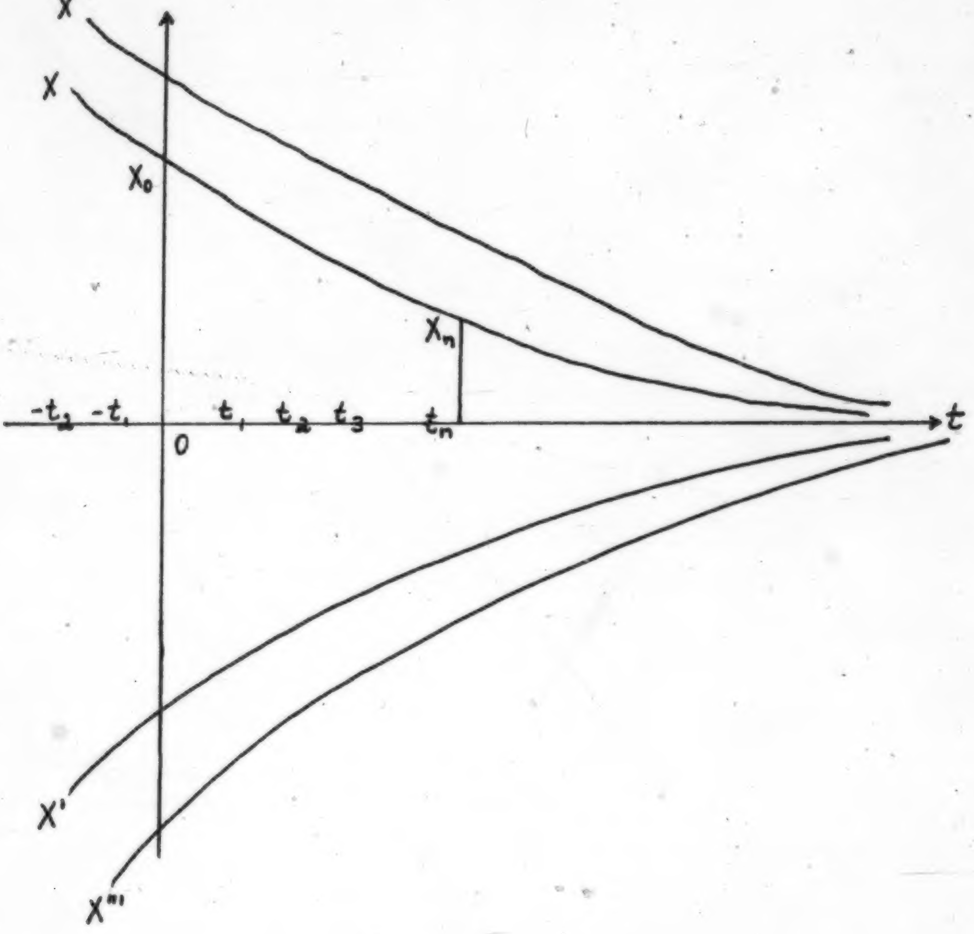
Bazarov, on the other hand, in "On Recovery Processes' in General and on the Possibilities of Currency Emission in Particular" appearing in Economic Review, approached the question of economic growth rates in the short run from a more theoretical basis. Any system possessing a definite organizational structure seeks to regain its state of equilibrium from which it has deviated. As the system approaches its equilibrium, the rate of growth or movement naturally slackens. In other words, as an economy returns to its previously established production levels, economic growth begins to slow.

This diminution of growth rates in the recovery process or transitionary period is not instantaneous but rather a continuous one, yielding a smooth curve as the process approaches a level of equilibrium.[46] At the outset of the recovery process, output will expand very rapidly. Then as demand is satisfied this growth will taper off. This process of diminution will occur as long as there remains unsatisfied demand. Only when, writes Bazarov

> . . . a significantly small number of unsatisfied customers remains, the recovery process as such is practically over. After that the development of production is attributable to the rise in population and to its well-being, or to the lowering of prices on output, resulting in fuller gratification of needs.[47]

This recovery or transition process was expressed graphically by Bazarov as a series of continuous curves approaching the horizontal axis as in Figure 1 below. The curves, X', X", X'" denote the rates or speeds at which the recovery process represented by curve X approaches equilibrium over .time or periods of observation, t_1, t_2, . . . , t_n. The distance from the equilibrium toward which curve X is travelling at any point in time is denoted by the line segment lying

FIGURE 1


X''
X
X₀
Xₙ
-t₂
-t₁
0
t₁
t₂
t₃
tₙ
t
X'
X'''

Source: V. Bazarov, "O 'vosstanovitel'nykh protsessakh' voobshche i ob 'emissionnykh vozmozhnostiakh' v chastnosti." Ekonomicheskoe obozrenie, no. 1, 1925, p. 15.

between curve X and the horizontal axis, t, i.e., X_0-0, X_1-t_1, . . . , X_n-t_n. As curve X approaches the horizontal axis, the distance from the equilibrium, represented by the line segment, correspondingly diminishes.

This led Bazarov to conclude that the recovery process is characterized by the equation, $X=X_0e^{-kt}$, where X_0 is the distance of the process from the level of equilibrium at t_0 observations, e the base of the natural logarithm, k a coefficient and t observations at any respective point in time.[48] Differentiating mathematically this expression, one obtains the curves, X', X" and X"', which represent the first, second and third t derivatives respectively.[49] From this series of differential curves, one can see that as the recovery process or curve X approaches equilibrium its rate of speed diminishes at an increasing rate.

From any point on curve X, according to Bazarov, it is possible to measure the actual distance the process is from equilibium and to determine also the rates, designated by curves X', X" and X"', at which this distance is changing. If the distance from equilibrium is positive as represented by the line segment, then over time as the recovery process approaches equilibium the line segment will diminish progressively at an increasing rate. In other words, the rate of growth during the recovery diminishes at an increasing rate as the economy nears equilibrium levels. This is the crux of Bazarov's version of the theory of the "diminishing curve."

In the case of the recovering Soviet economy, growth rates were expected to begin tracing a diminishing curve. In early 1925, the economic recovery was well advanced with industrial production regaining 75% of its prewar production levels.[50] As industrial production drew nearer to its 1913 levels, the expectation was that growth rates would naturally slacken and return to more historical growth trends. The fact that the pattern of growth rates was not conforming to the conclusions of the "diminishing curve" postulate led Bazarov to believe that the recovery was not a

> . . . temporary retardation of the economic process in one field, but . . . a severe deformation of the whole of the national economy, a deformation which has grossly disrupted all the relationships of the parts.[51]

In short, the theory of the "diminishing curve", as developed by Groman and Bazarov, was an attempt to explain the phenomenon of the recovering Soviet economy. In a system of organized and interrelated parts, it was expected that the economy would, in its course of movement to a more stable level of equilibrium, experience a slowing of growth rates. Implicit in this belief was the assumption that the economy had not fundamentally changed and consequently the movement toward a stable equilibrium would result in falling rates of growth of output and capital formation in the short run.

Applications of the "Diminishing Curve"

The idea of declining rates of growth in output and capital formation naturally found acceptance in most official planning documents before 1928. The principal planning documents of the Ginzburg commission and those of the Gosplan commissions for the drafting of the Five Year Plan embodied the assumption that growth rates would attenuate throughout the planned period. Though approaches to the question of planning and forecasting industrial growth varied, all official documents employed this notion of falling growth rates in their calculations. However, by the spring of 1928, the idea of attenuating growth rates came under increasing attack from the Party and led to several revisions of the calculations of drafts of the Five Year Plan as shown in Table 5 below.

The VSNKh Five Year Plan for 1927/28-1931/32, prepared under a commission headed by Ginzburg and completed in mid-1927, employed the "diminishing curve" in its projections of industrial growth. The Plan envisioned for 1931/32 an output of large-scale industry controlled by the VSNKh which would be 82.1 percent higher than the estimate for 1926/27, (see Table 5 below). The planned annual increases for VSNKh controlled industry were therefore expected to decline from an initial annual rate of 16.3 percent in 1926/27 to an annual rise of only 10.0 percent in 1931/32.

After the Ginzburg commission released its Five-Year Plan in mid-1927, the plan was revised in November 1927 when the VSNKh released its Control Figures. Industrial output shown below in Table 5 was to grow by 108.0 percent but annual growth rates still remained based on the principle of the "diminishing curve." These figures underwent further revisions in 1928. Slowly, the idea of falling growth rates was replaced by one of a stable or increasing growth curve. The December 1928 VSNKh draft envisioned a 167.7 percent total increase and a slightly rising growth curve for industry, with annual increases rising from 21.9 percent in 1928/29 to 22.4 percent in 1932/33.

TABLE 5
PLANNED RATES OF GROWTH OF GROSS PRODUCTION OF LARGE-SCALE INDUSTRY IN SUCCESSIVE DRAFTS OF THE FIRST FIVE-YEAR PLAN[a]
(IN PERCENT)

DRAFT	FIVE YEAR RATE OF GROWTH	ANNUAL RATES OF GROWTH						
		1926/27	1927/28	1928/29	1929/30	1930/31	1931/32	1932/33
March 1927, Gosplan[b]	79.5	19.1	13.2	10.6	9.9	9.2	-	-
July 1927, VSNKh[c]	82.1	-	16.3	13.1	13.7	10.5	10.0	-
Nov. 1927, VSNKh[d]	108.0	-	18.1	16.6	17.6	13.8	12.8	-
Nov. 1927, Gosplan[e]								
Basic variant	92.0	-	16.4	14.0	14.1	12.9	12.3	-
Optimum variant	108.0	-	18.1	16.6	17.6	13.8	12.8	-
April 1928, VSNKh	140.0	-	23.1	18.3	18.3	18.4	18.4	(18.4)
Aug. 1928, VSNKh	121.0	-	-	19.7	17.3	17.7	17.5	14.4
Nov. 1928, VSNKh	135.0	-	-	19.2	18.9	18.1	19.4	17.6
Dec. 1928 VSNKh	167.7	-	-	21.9	20.2	21.8	22.6	22.4
April 1929 Gosplan First Five-Year Plan								
Basic variant	135.0	-	-	21.4	18.8	17.5	18.1	17.4
Optimum variant (became law)	179.0	-	-	21.4	21.5	22.1	23.2	25.2

Sources: N. Jasny, Soviet Industrialization, 1928-1952 (Chicago and London: University of Chicago Press, 1961), Table 1, p. 57 and E. H. Carr and R. W. Davis, Foundations of a Planned Economy, Volume I, Part II (London: MacMillan and Co. Ltd., 1969), Table 49, p. 981.

NOTES:

a) Large-scale industry controlled by the VSNKh. Growth measured in 1926-1927 prices unless otherwise indicated.

b) Perspektivy razvertyvaniia narodnogo khoziaistva SSSR na 1926/27 - 1930/31 gg. Preface dated March 21, 1927. Prepared under S. G. Strumilin.

c) Materialy k piatiletnemu planu razvitiia promyshlennosti SSSR (1927/28 - 1931/32 gg.). Prepared under A. M. Ginzburg. Published September 2, 1927.

d) Kontrol'nye tsifry piatiletnogo plana promyshlennosti (1927/28 - 1931/32). Published as a pamphlet in November (?) 1927. Prepared under V. Mezhlauk. All VSNKh drafts subsequent to Materialy were called Control Figures.

e) Perspektivnaia orientirovka na 1927/28 - 1931/32 gg. Based on Gosplan draft of Perspektivy of March 1927. Published as a pamphlet in 1928. Optimum variant figures were those of VSNKh Kontrol'nye tsifry from the Mezhlauk commission.

The Gosplan Five-Year Plan for 1926/27 - 1930/31, which was published in the spring of 1927, envisioned also a declining growth curve. Prepared under the chairmanship of Strumilin, this draft forecasted a 79.5 percent increase in gross industrial output by 1931/32. Annual growth rates as indicated in Table 5 above would decline markedly and stabilize at an approximate rate of 9.0 percent in 1931/32. By the end of 1927, Gosplan under increasing political pressure revised the plan projections of the Strumilin commission and introduced a system of basic and optimum variants. This system of variants for the Five-Year Plan for 1927/28 - 1931/32 continued to postulate a declining growth path. By April 1929 when the First Five-Year Plan was promulgated into law, the projected increases for gross industrial output were much higher. An increasing growth curve had replaced the "diminishing curve".

On a closer examination of the plannned rates of growth of gross industrial output in Table 5, a few observations can be noted. The drafts released by the VSNKh and Gosplan in 1927 assumed that the period of economic restoration was over and growth rates would now decline. Two documents, one compiled by Ginzburg and the other by Strumilin, projected very significant declines in annual growth rates. These two drafts appeared at a time when the influence of Groman, Bazarov and Ginzburg was at its height. Groman was publicly honoured for thirty years of work in statistics.

From the end of 1927 to the spring of 1929, a new and more ominous trend appears. Projected growth rates are increased markedly. By April 1929 the planned five-year rate of growth of gross industrial output more than doubles, from 82.1 percent and

79.5 percent for the respective VSNKh and Gosplan drafts to the adopted rate of 179.0 percent. This doubling reflected a growing desire by the Party after November 1927 to expunge from all drafts any hint of the diminshing curve. It is unfortunate to note that during this period the proponents of the diminishing curve, principally Groman and Bazarov came under attack and were removed from influential positions in Gosplan. Ginzburg, after the release of the findings of his commission in July 1927, is sent to the United States for six months. By mid-1928 an active campaign is undertaken by the Party to replace several non-Party specialists with Party members in several commissariats, Gosplan and the VSNKh.

The Theory of Long Cycles

While Bazarov and Groman are considered to be the chief proponents of the nature of economic growth in the short run, there is no question that Kondrat'ev's studies on the dynamics of growth in the long run, in the form of long cycles, constitute a significant contribution to 20th century economic literature. As Kondrat'ev commented in 1928:

> I arrived at the hypothesis concerning the existence of long cycles in the years 1919-20. Without going into a special analysis, I formulated my general thesis for the first time shortly thereafter in my study The World Economy and Economic Fuctuations in the War and Post-War Periods. During the winter and spring of 1925, I wrote a special study on "Long Business Cycles" which appeared in Volume I of Voprosy Kon'yunktury(Problems of Economic Fluctuations),

> published in Moscow by the Institute of Conjuncture in 1925.[52]

This study, "Long Business Cycles", expressed the results of his statistical investigations and research on long economic cycles. On February 6, 1926 the study was read as a paper at the Institute of Economics of the Russian Association of Research Institutes in Social Sciences. In 1928, the paper was published in a book, Bol'shie tsikly kon'iunktury (Long Economic Cycles), with Kondrat'ev listed as author and D. I. Oparin as co-author.

In 1926 the study on long business cycles was published in an abridged translation in the German journal Archiv für Sozialwissenschaft und Sozialpolitik, under the title, "The Long Waves in Economic Life". In 1935 this abridged translation appeared in English as "The Long Cycles". For many years these two versions were the only statements in the West of Kondrat'ev's work on long cycles and the dynamics of economic growth in the long run.

His paper of February 1926, offered the clearest expression of his thoughts on long cycles. The investigation centered on the evolution of the capitalist economic system. It was a culmination of many years of research on the dynamics of capitalist society as Kondrat'ev writes:

> . . . I came across phenomena that were hard to explain without postulating the existence of long, fluctuating processes in the dynamics of the economy whose influence was very deep and significant.[53]

In his investigation of these unusual phenomena, Kondrat'ev assumed the existence of a theoretical curve which could represent real evolutionary trends in the development of an economy. Employing several statistical techniques, such as the method of moving averages to smooth out short-term disturbances, Kondrat'ev developed a series of curves. As a precaution against potential error, he considered it "necessary to study the development of capitalism in its specific traits; and not only on the costs of figures, but also on the basis of descriptive data."[54]

By these means he examined data available for France, England, and United States, for the period from 1789 to 1921. The data included changes in the average level of commodity prices, interest rates, nominal wages, foreign trade turnover, coal, pig iron and lead production and consumption, and savings. From these data, he concluded that the dynamics of the series exhibited long cycles, that these cycles were wavelike in nature and that they more or less coincided in time.[55] Moreover, he asserted that there was "a very close correspondence in time between the cycles in the dynamics of the series given for individual countries."[56] On this basis he postulated with certain reservations, that from the last quarter of the 18th century capitalist economic development had been characterized by three long cycles:

First cycle:

1. Rising wave: from the Eighties and early Nineties of the eighteenth century to 1810-17.
2. Downward wave: from 1810-17 to 1844-51.

Second cycle:

1. Rising wave: from 1844-55 to 1870-75.
2. Downward wave: from 1870-75 to 1890-96.

Third cycle:

1. Rising wave: from 1891-96 to 1914-20.
2. Probable downward wave: beginning in 1914-20.[57]

These long cycles, he noted had the following characteristics. Firstly, before the beginning of the rising wave of each long cycle, considerable changes occur in the basic conditions of the economic life of capitalist society. These changes are manifested in the technique of production and exchange, in the conditions of monetary circulation, and in the enlargement of the role played by new countries in global economic life.[58] Rapid succession of major discoveries or inventions precede the rising wave. In the case of the first long cycle, its rising wave was preceded by numerous technical inventions in certain basic branches of British industry and to a lesser degree French. Another important development were the first steps by the United States to enter into the world market.[59] The second cycle, likewise, was preceded by a number of major technical inventions such as the turbine, Portland cement, harvesting machine, telegraph, steam pump, rotary press, sewing machine and the laying of the first underwater cable. These technical inventions led to the creation of new industries and to improvements in production methods. Other important developments were the growth of transoceanic transportation, a further enlargement of the role of the United States in world markets and major gold discoveries in California and Australia. Major discoveries in the field of electrotechnics, such as the electric dynamo, vacuum pump, drill press, electric locomotive, discovery of hydrazoic acid, electric railroad, electric welding and forging, electric streetcar, gasoline engines, telephone, and wireless telegraph, preceded the third cycle. This large-scale application of electricity and chemical science coincided with the beginning of a new period of quickening tempo in economic development which brought in its wake a rise in gold production, the establishment of the gold standard and the entry into international commerce of such new countries as Australia, Argentina, Chile and Canada.[60] In the beginning of each new long cycle:

> . . . we observe the broad applications of . . . inventions in the sphere of industrial practice due to the reorganization of production relations. The beginnings of the long cycles usually coincide with an expansion of the orbit of worldwide economic relations. Finally, the beginnings of the last two cycles were preceded by major changes in the production of precious metals and in monetary circulation.[61]

Secondly, he noted that the periods of the rising waves of long cycles are considerably richer in social upheavals and radical changes in social life. To illustrate this point, he compiled a simple list of historical events. Some interesting observations from this list were the following. The Declaration of Independence of the United States, the French Revolution, and the War of 1812 occurred in the rising wave of the first long cycle; the Revolution of 1848, Crimean War, American civil war, the unification of Italy and Germany and the Franco-Prussian war of 1870 in the rise of the second cycle; and the Boer war, Russian revolution of 1905, World War I, and the October Revolution of 1917 in the rise of the third cycle.[62]

Thirdly, he observed that the downward waves of the long cycles were accompanied by a long depression in agricultural prices. This slump was clearest in the case of England. A prolonged depression in the prices of wheat, wool and flax appeared after the Napoleonic wars, from 1820 to 1840 and again in the period, 1869-1895.[63] The crisis in agricultural prices of 1920, he believed, signified that the capitalist world had entered the downward wave of a third long cycle.

Fourthly, he asserted that all short and intermediate cycles of nine years or less were part of the long cycle. Depending on whether the long cycle was on a declining wave or in a rising period, the phases of upswing, crisis and depression of the intermediate cycles can be accentuated or suppressed. In the case of a downward period of a long cycle, the upward trends of the intermediate cycles would be brief and weak. Depressions would be especially long and deep. In rising waves, the converse holds true with the depressions of the intermediate cycle being noticeably brief and shallow. Upswings would be long and deep. To substantiate this proposition, he drew on data from Arthur Spiethoff, a German economist and contemporary. In the downward period of a long wave the number of years of depression outnumbered the number of years of upswing and conversely, in the case of rising waves there was an average of two good years for every bad one.[64]

At this point it must be noted that Kondrat'ev never considered his theory of long cycles to be an abstraction but rather an attempt to explain economic phenomena which seemed to occur on a periodic basis. In analyzing statistical data from England, France, Germany and the United States for over a period of 150 years, he could not avoid concluding that "on the basis of available data, . . . the existence of long cycles in economic conditions is very probable."[65]

Since long cycles were comprised of wavelike fluctuations, he concluded that these fluctuations or deviations caused the equilibrium level in capitalism to be a mobile one.[66] In the long run this level of equilibrium would be determined by the economic functions of goods and commodities whose processes varied greatly in time and capital needed for their respective production.[67] Thus, he hypothesized that long cycles resulted from the replacement and expansion of capital goods and investments.

In this schema, consumer goods, raw materials and certain means of production required relatively little time and small one-time investments for their production. These commodities could function without substantial transformations, or additional investments.[68] Capital goods, on the other hand, functioned over longer periods of time. They required more time and larger investment outlays in order to be brought into production. Most means of production, major construction projects, railroad building, canals, large land improvement projects, and training of skilled labour were such examples. They functioned for decades, and required very long periods of lead time and tremendous investments for their production.[69] In this respect, Kondrat'ev came to the view that long cycles, subsequently, could be expressed as a process of the deterioration, obsolescence, replacement and expansion of these basic capital goods.

This process, Kondrat'ev noted, however, does not take place smoothly but in spurts. It is these spurts in the construction of basic capital goods that mark an upswing, a period during which there is an upward deviation from the existing equilibrium level in the economy.[70] Conversely, periods of quiescence in such construction mark a downswing. For these tremendous investments in capital goods to occur relatively inexpensive capital surpluses must be available. This requires in turn a rate of capital accumulation greater than that of current investment and the concentration of such capital in the credit system and the stock market.[71] Once these conditions are met, there begins a phase of large-scale, long-term industrial investments in which accumulated technical inventions are broadly applied and new productive forces are created. This leads to a general rise in economic conditions, increasing production, a sharpening competition for new markets and raw materials, and growing international commerce. Concomitant with this economic upswing is an increase in the number of military conflicts, and greater pressures for social change. This upward trend would continue until demand for capital exceeds its supply, force upward the cost of capital and lower subsequently the rate of return on long-term investments.

This lowering of the rate of return on long-term investment brings in its wake a reduction in investment levels, causes economic activity to contract and prices to drop. The economic contraction stimulates a search for ways of cutting production costs and a quest for new technical inventions, discoveries, and innovations that will facilitate such cost-cutting.[72] In addition to this decline in demand for capital, there occurs, writes Kondrat'ev, an increased accumulation of capital in the hands of banking and other business enterprises. This accumulation favours those segments and groups of the population who have fixed incomes and comes at the expense of the portion of population who possess variable incomes, principally agriculture.[73] Agriculture, under pressure from falling prices, experiences a deeper depression than in industry which adapts more rapidly and is able to reduce its production costs faster.[74] This situation continues until conditions favouring long-term investment are once more created.

Kondrat'ev found evidence to substantiate this accumulation and diffusion of free capital in the fluctuations and movements of deposits in French savings banks for the period from 1835-1913.[75] A real growth of savings deposits occurred in the downward wave of the long cycle, while in the rising wave savings deposits tended to stagnate or decline marginally. An upswing in economic activity redeploys a large amount of free or working capital held in the form of deposits into capital investment. Conversely, in depressed economic conditions, personal savings and retained earnings of businesses accumulate in financial instruments as individuals and firms grow reluctant to make long-term investments.

Summarizing his hypothesis about the existence of long cycles, Kondrat'ev concluded that these cycles possessed an inner regularity. Each successive phase of a cycle, he wrote,

> . . . is the consequence of conditions cumulatively amassed during the preceding time interval; and provided the principles of the capitalist organization of the economy are preserved, each

> new cycle follows another just as regularly as one phase of one and the same cycle follow another. But in this connection it is essential to bear in mind that each new cycle takes place under new concrete-historical conditions, at a new level in the development of productive forces, and hence is by no means a simple repetition of the preceding cycle.[76]

The publication of Kondrat'ev's theory of long cycles naturally provoked a great deal of criticism from his Soviet contemporaries. Much of the criticism was virulent and polemical. D. I. Oparin, a colleague, offered one of the most complete analyses of Kondrat'ev's work.[77] To Oparin, Kondrat'ev's statistical analysis lacked consistency and failed to give a definite economic meaning to each statistical operation. Swings in economic life "must be measured, not in relation to a previous time point, but to an established equilibrium system."[78] Bazarov, in a review of Kondrat'ev's article, noted that the statistical techniques used did not lead to a clear separation of long-term or secular trends and those of long waves.[79] Of Kondrat'ev's contention that long cycles existed, Oparin examined the time series selected and the sources cited, and concluded that long cycles could be observed only in the movement of prices and of long-term interest rates.[80] Therefore, to claim the existence of long cycles as an international phenomenon was not valid.

The validity of Kondrat'ev's empirical observations on technical inventions and social upheavals occurring during upswings came under particularly strong criticism. To Oparin, Kondrat'ev's selection and dating seemed to be arbitrary. Technical inventions and social upheavals, he noted, were more equally distributed over the different phases of the long cycles rather than grouped on a cyclical basis.[81] To Bazarov, the correspondence between periods of retardation and acceleration in the growth of different national economies seemed to infer that when a country reaches a certain level of development, the centre of capitalist development shifts from it to another country.[82] If so, Kondrat'ev's long cycles imply that capitalism would continue to evolve and cast doubt on the Bolshevik contention that the collapse of capitalism was imminent.

From the preceding discussions on the nature of economic growth in the short-run, as postulated in the theory of the "diminishing curve" by Groman and Bazarov, and in the long run by Kondrat'ev's theory of long cycles, one arrives at certain conclusions. For the question of Soviet economic development and for the official party policy of promoting rapid economic growth the implications are clear. In the short run the ability of the country to adopt very high economic growth rates rests on the capacity of the national economy to raise its rate of capital accumulation. According to Groman and Bazarov, as the economy recovers from the dislocation and disorganization of the civil war, economic growth will decline. As economic growth rates decline so will the rates of capital formation. Since the basic structure of the economy has not appreciably changed, it is doubtful therefore whether the rapid pace of economic growth as envisioned by the Party could lead to a more efficient and technically advanced industrial sector and modernized agriculture. In the long run, according to Kondrat'ev, such a modernization and industrialization of the Soviet economy would require prodigious amounts of capital investment, long lead times and great energies before the desired results could be obtained.

D. Planning Methodology

In the previous sections, on development strategies and economic growth, we made two points. Firstly, the backwardness of the Soviet economy was a serious impediment to industrialization. Secondly, economic growth will over time decline. These points now lead us to consider the role of planning for economic development. According to Groman, Bazarov, Ginzburg and Kondrat'ev an economic plan is an investigation of the economic forces at work and reflects the concerns of the appropriate development strategy and rate of growth. Its premises will be set by the objective conditions of the economy, its state of development, the existence of available resources for allocation and certain assumptions about the rate of growth, capital accumulation, labour productivity, and so on. In this way, the plan becomes an attempt to view the economy as a whole, as an organism composed of parts and interrelationships. Following these basic principles of the "genetic" approach, the planner will be governed by certain basic criteria in the framing of plans for the short-run and long-term. This was part of their legacy Groman, Bazarov, Ginzburg and Kondrat'ev bequeathed to their future Soviet and Western planners.

Basic Criteria for Planning

Economic plans, in general, to be successful instruments of change, must be formulated in accordance with and satisfy certain basic criteria. As conscious efforts to influence or direct economic changes, these plans whether drafted by governments or private corporations must in the first instance have a direct grounding in reality. They must be drafted in the light of current economic conditions. They must be realistic and practical documents. As such, economic plans must be internally consistent. They must, in other words, be in harmony with one another and lead to the desired results. Lastly, the plan must strive for optimality. It must seek an optimum path of development, promote an efficient allocation of scarce resources, maximize rates of return on capital investment and so on. On these basic criteria for economic planning, there was a unanimity of opinion in the writings of Groman, Bazarov, Ginzburg and Kondrat'ev.

For a plan to be considered a realistic and practical document, it must consider the present parameters, strengths and limitations of the country's resources. The plan must take into account the actual levels of physical output, savings rates, capital formulation, etc. In order for this to be possible, accurate and reliable factual data must be available to the planner. It is then the planner's task to construct a plan which can provide in a fairly accurate way an assessment of the current state of the economy's development and formulate assignments that realistically reflect current economic tendencies and probable states of development.

The role of the planner is not an easy one, as Ginzburg noted in an article in April 1927 in Economic Review. All too often the plan becomes a document reflecting the prejudices, desires, hopes and biases of the planners. During the course of compilation, the planners are swayed by the current state of economic events and develop a plan which may underestimate the actual state of the economy's health or overestimate the potentials of the economy. As Ginzburg writes:

> If the plans are compiled in a time of declining economic conditions, psychological assumptions are invariably made favouring an underestimation of the possible perspectives of development; if economic conditions, on the other hand, are on the increase the compilers of the plan then get carried away with optimistic hypotheses and predictions.[83]

To prevent the incorporation of such subjective factors into the plan is in the least an extremely difficult task to accomplish and at most an almost impossible one. Once such factors have entered into the plan, it is exceedingly difficult to eliminate them. According to Ginzburg, the evidence is all too obvious:

> However may vary the formulation of the issue of the best method of compiling plans, they all in general come to the recognition of what is the most valuable method of consistent approximation. We are forced by the draft of perspective plans to proceed from certain a priori assumptions of the possible and desirable paths of development of the national economy and from such a priori assumptions to proceed toward the construction of individual elements of a developing economy.[84]

The existence of a priori assumptions about the current and possible paths of economic development in the drafting of plans is not in itself an unduly dangerous thing, if the compilers have access to reliable, accurate and complete data about the current state of economic affairs. The real danger lies in the situation when the compilers cannot obtain reliable data on actual economic conditions. For Ginzburg drafting his Five-Year Plan for industry for the years 1927/28 - 1931/32, the lack of reliable statistical data on the economy was a major shortcoming and led him to qualify the veracity of the results of the Five-Year Plan:

> Unfortunately the state of statistical and accounting data on the economy is such as to exclude all possibility of preparing reliable balances. For many components of the national economy we do not have exact data, for example on small-scale industry; on the numbers and earnings of transient workers; on the size of private procurements, etc., and even on the real harvest of grain. Under such conditions it is impossible to prepare balances of demand and supplies. We do not even have unimpeachable data on the output of industry and its value. Estimates differ even as regards the output of the State sector, not to speak of the private and co-operative sectors . . . .[85]

On this score, Bazarov concurs and adds another dimension to the problem of plan formulation to which modern mathematics can offer a partial solution:

> It must be pointed out in advance, however, we are not in a position to plot the optimum curve of perspective development with complete accuracy and rigor, not only because we do not have sufficient factual data at our disposal but because of the very nature of the problem. To compute the shortest or optimum paths given definite, previously stipulated conditions is, as we know, one of the most difficult problems of the art of calculation. Modern mathematics offers methods of

> solving problems of this nature for only a few very simple cases, and even here the methods to be employed are highly sophisticated (the methods of the so-called "calculus of variations").[86]

To Kondrat'ev, plan compilation rests on the correlation of the plan's assignments with the country's actual resources and its potential for development. The planner must, on the one hand, have knowledge about the underlying forces in the economy and, on the other, probable knowledge or a forecast of possible resources and course of development. If the planned assignments are to be realistic, then they are invariably bound up with elements of prediction.[87] This presupposes a degree of flexibility in the plan's assignments. The plan must be flexible to adjustments as needs may rise and as more reliable data is made available to the compilers.

Besides being realistic, the plan must also be internally consistent. In his article, "Critical Remarks on the Plan for the Development of the National Economy" appearing in April 1927 issue of Planned Economy, Kondrat'ev presented a very strong critique of Strumilin's views on the Five-Year Plan, and the Plan's apparent internal inconsistency.[88] For a plan to be consistent, writes Kondrat'ev, its assignments or directives "must be fairly well meshed with one another and strictly correlated with the country's real resources and real potentials for development."[89] The tasks of any plan must be coordinated and expressed or developed in such a manner that there results a relatively realistic and harmonious combination. Each goal supplements and complements the other. Precluded are those goals which may in themselves appear to be laudable but in combination with other objectives lead to serious conflict and inconclusive results.

Citing Strumilin's view of the over-all task to be accomplished in drafting a perspective plan as a crisis-free and rapid expansion of the economy's productive forces, the maximum satisfaction of the population's needs and the redevelopment of society along socialist and communist principles, Kondrat'ev considered the task unrealistic. Moreover, it contains within it sources of serious conflict, which the compilers had not addressed:

> . . . The basic error committed in the drafting of the plan is that those who drew it up sought to accomplish the series of tasks indicated above (i.e., maximum, crisis-free expansion of productive forces, maximum satisfaction of current needs, etc.) simultaneously and in maximum degree without taking sufficient account of the fact that when these partial tasks are expressed in extreme terms they come into collision with one another. What had to be found was the very best combination of these tasks, which would at the same time be a perfectly realistic combination. Instead of a realistic combination of tasks we see in the plan a formal balancing of various estimates, which makes it, at first glance, outwardly well-proportioned. Internally, however, it is economically inconsistent.[90]

The best combination of tasks can be developed only by an internal meshing of the dynamics of the several branches of the economy.[91] This is to say, the rates of growth, capital accumulation, and savings of each respective branch or sector of the economy must be consistent with one another. An unrealistic approach or expectation of one branch developing faster than another without a clear understanding of the linkages between sectors of the economy leads only to an undue reliance on arithmetic calculation. It leads not to consistent plans but rather to "statistical fetishism," to a presentation of numerical data.[92] This led Kondrat'ev to wonder about the true intent of the Five-Year Plan for 1926/27 - 1930/31:

> One wonders why the centre of gravity in the making of the plan should so hastily have been shifted directly to numerical calculations, and why elements of validation should at the same time have been all but totally excluded. One would think it should have been the other way round, that at the outset the focus in the making of the plan should have been on formulating and analysing our basic problems of economic development and on substantiating particular perspective plans, for the figure ought only to represent final concretization of the conclusions from this analysis.[93]

In addition to meeting such criteria as feasibility and consistency, the plan must also strive for optimality, for the most efficient allocation of scarce resources, the maximization of returns on capital investments and so forth. It must therefore promote "crisis-free and balanced" growth of the economy based on the principles of least-cost and maximum realization of the desired goals. This requires the existence of accurate and reliable data and a clear understanding of intersectoral linkages in the economy. In the case of the Soviet economy during the NEP, the plan was viewed more or less by Groman, Bazarov, Ginzburg and Kondrat'ev as a search for the optimum path of development.

Commenting on the perspectives of the Five-Year Plan for 1926/27-1930/31 drafted by Strumilin, Kondrat'ev noted that the search for optimality in a plan demands a clear understanding of the underlying forces determining the rates of growth of and linkages between the main branches of the economy. To remark, as Strumilin did that "the very existence of a plan for industry in a measure predetermines the perspective plan for agriculture" is to oversimplify the problem of plan optimality and to cast the entire issue in a declarative format.[94] The consequence of this leads to the development of a procedure of drawing up balances of output and allocation separately for each branch of the economy, with each goal derived intuitively.[95] The linking of these balances by successive approximations may not necessarily result in an integrated economic model which is optimal or even feasible.[96] Such an approach to optimality thus leads the planner to oversimplify the problem and to adopt in the place of a serious quest for optimality "an engineering approach" which compels the planner to

> . . . regard as given or as predetermined elements which can in no wise be regarded as such and which have to be determined. It means that he is cutting the thread between his projections and reality. From this it is but a step, and a small one at that, to the framing of plans that are completely arbitrary.[97]

Such a step, notes Kondrat'ev, completely disregards the factors and assumptions that shape the formulation of perspective plans for various sections of the national economy. Factors become more or less contents of a formal inventory which lacks any substantive analysis of the pertinent elements.[98] This leads to the situation where any attempt to closely analyze the factors will produce incorrect conclusions. One is led either to discover other factors that were assumed without sufficient validation or to a vicious circle.[99] The planner, unlike Strumilin's case of the engineer, must be concerned with the availability of building materials or monetary resources:

> . . . In planned construction we must solve the problems not only of the very best way of combining the available economic elements but of the dimensions and forms in which we shall have or can ensure these elements at the present time and in the future (for example, accumulation, market capacity, etc.). We cannot take these elements in our framework as given or predetermined; nor do we have the right to do so. We have to determine them in the light of the total situation. But without an understanding of actual conditions and without prognostications we are not in a position to determine them.[100]

The planner must therefore consider the most efficient combination of available resources required by the plan. In so doing the planner understands the linkages that exist between the various sectors of the economy, the relationships between the inputs of one branch which constitute the output of another. These intersectoral linkages must be viewed globally. Without such consideration of these linkages, the planner may incorrectly assume the type and nature of the restraints under which the plan is going to operate. The plan could then become subject to serious imbalances in the form of supply bottlenecks, excessive demand, inflationary pressures and a general disorganization within the economy. At that point, the plan would become both suboptimal and unfeasible.

To Bazarov and Groman, the search for an optimum economic plan is seen in terms of underlying propositions. These propositions, to Bazarov, govern the search for an optimum course of development. In the first instance, the planner must be particularly attentive to the need for smooth periods of transition. A necessary prerequisite for any plan to be optimal is the existence and maintenance of definite economic reserves.[101] These "contingency and maneuvering reserves" must be developed not only logically but also chronologically in the drafting of the plan.[102] An optimal plan respects the present economic situation and seeks a flexible path of development. There is no room for tautness or a predilection on the part of the planner to implement "crash" development programmes.

The second proposition is the recognition of the need for proportionality and internal consistency of the separate elements of the plan. Without this, the planner does not understand the totality of what is to be accomplished and of the ramifications of the plan's goals. The plan will not project the immediate stages of development in its chronological sequence and organic connection to all sectors of the economy.[103]

The acceptance of economic reserves and proportionality compels the planner to choose the path of development that is the shortest. Here is the recognition by Bazarov that optimum development is a necessity born out of the backwardness and underdeveloped nature of the Soviet economy. The nation does not possess substantial resources for economic development and therefore must allocate in the most efficient way its scarce resources for maximum benefit. While a planned economy may raise the possibility of a more rational use of scarce resources to be spent on reconstruction and capital investment, it does not mean that the

Soviet economy will be able to do so:

> . . . The inherent advantages of the planned economy over the capitalist . . . are beyond dispute; they add up to the possibility of making more rational use of the share of national income which we spend on reconstruction. But the relative size of that share of our planned economy at the present stage of its development is by no means greater, but rather even smaller, than in a capitalist economy which is at the same level of development of its productive forces. No matter how hard we try to constrict the consumer demand of the masses in the difficult transitional period of the next few years, we shall in no case be able to achieve the norms of capitalist society in this respect.[104]

This concentration of effort for maximum utilization of scarce resources is by no means guaranteed. To Ginzburg, existing resources and productive capacity must be rationalized. The feasibility of any draft of industrial development is possible only by a proper organization of the entire economic process."[105] This must be so if the plan is to be a worthwhile venture.

Briefly summarizing, to Kondrat'ev, Groman, Bazarov, and Ginzburg, any plan must be formulated according to and satisfy certain fundamental criteria. A plan must strive for a realistic assessment of current economic conditions. It must be part of an active quest for the adoption of planned assignments which respect the present economic state of affairs. The plan's tasks must be correlated internally in the plan and with the actual economic conditions of the country. Lastly, the plan must be a search for an optimum path of development. The plan, in recognizing the paucity of the nation's capital resources, seeks to promote an efficient combination of these scarce resources. Only then can it be considered a worthwhile venture for national development.

Planning Issues and Problems

As a document seeking to satisfy the criteria of feasibility, consistency and optimality , the plan to Groman, Bazarov, Ginzburg and Kondrat'ev, faces particular tasks and considerations in the short-run and in the long-term. In the short-run, the plan, as in the case of the Control Figures, is more of an investigation than a plan of action. In the long-term, the perspective plan, or Five-Year Plan, offers more possibilities for action and change. Yet these avenues must respect the overall state of the economy's production possibilities and its underlying forces of development. Consequently, the methodology of plan compilation must reflect this concern. Thus, in the short term, is it preferable to pursue a policy of satisfying immediate consumer demand? What resources are available for the realization of this goal? What of a policy advocating increased capital investment in industry in the long-run? Are the available resources sufficient to finance such an objective?

As the chief compilers of Gosplan's Control Figures for the years 1925/26, 1926/27, and 1927/28 Groman and Bazarov employed three methods. In using dynamic coefficients, expert estimates and control comparisons with prewar data, they sought to clarify the outlines of economic development and the quantitative relationships that linked the separate elements of the economy into a single organic whole. The basic task of the Control Figures for 1925/26 and the next two sets was essentially

> . . . to present, for the coming year, the basic contours of the most important elements ~~of~~ the national economy, to establish their interconnection, and to sketch the state of the economy as a whole which would in all probability be attained in the year to come . . . .[106]

The method of dynamic coefficients was an attempt to describe the existence of certain observable regularities and trends in the economy. Three such regularities were observed. The economic recovery underway would occur first in agriculture and then in industry. The recovery would proceed faster in those sectors hardest hit by the civil war. Lastly there existed certain stable quantitative coeffients, namely the ratio between the value of agricultural and industrial outputs of 37/63.[107] From these coefficients were compiled partial balances and prognostications which were verified by specialists of various government departments. Lastly, using the yardstick of prewar data and relationships the estimates were verified again and corrected. The whole intent of this methodology was to provide an inquiry and conclusions about the possible course of the economy in the forthcoming year.

As an inquiry, the Control Figures encountered a number of limitations and problems. The first was the difficulty of the compilers to make reliable forecasts about probable economic conditions in the upcoming year. A partial crop failure late in 1925 resulted in a revision of the estimates of the Control Figures for 1925/26. The Control Figures for 1926/27, erring on the side of caution, did not expect a robust economic recovery and were likewise revised.

Writing on the Control Figures for 1927/28, Bazarov noted that forecasts continued to be tentative and subject to omissions of statistical data concerning agriculture, small-scale industry, unemployment and private trade.[108]

Another problem was the difficulty of developing a method of analyzing the non-state sectors of the economy. Since most large-scale industry was under the administration of the VSNKh, statistical data was relatively easy to obtain. For agriculture, small-scale industry and private trade, little or no reliable statistical data was available. The only recourse in this circumstance was to obtain estimates from specialists and to extrapolate from past trends the possible courses of development and activity the non-state sector would pursue in the near future.

Another constraint was the political interference and tendency of policy-makers to place conflicting demands on the economy. Since the Control Figures were never approved by the government as policy-making documents, other government departments regarded the Control Figures as unwarranted intrusions into their sphere of activities. Moreover, with each revision of the Control Figures, conflicting demands in the form of higher growth rates and an expansion of the socialized sector at the expense of agriculture, private trade and small-scale industry grew. At a Gosplan conference held on 29 June 1927, Groman, ever mindful of the political interference remarked:

> We must have a system of control figures which guarantees us from ideas of genius and from arbitrary constructions.[109]

By the summer of 1928 when work on the Control Figures for 1928/29 began, Groman and Bazarov's influence had been undermined; their names did not appear in the preface of the document. The method of obtaining consultations from experts was omitted. In August 1928 the Government ratified the Control Figures for 1928/29 as a general plan for the national economy of the USSR for that year. The Control Figures became formally institutionalized as part of the still evolving Five-Year Plan, as a more action-oriented plan than one of investigation and inquiry.

In long-term planning the issues naturally revolved around the compilation of the Five-Year Plan, or perspective plan. Employing the use of material balances, ostensibly favoured by Groman, the VSNKh and Gosplan worked out several drafts of a five year plan from 1926 up to the beginning of 1929 when a final draft was officially ratified as the First Five-Year Plan. In this "struggle for a plan," Ginzburg was a major participant as chairman of a VSNKh commission on the Five-Year Plan. Groman and Bazarov, on the other hand, were not permitted by Gosplan to assume any responsibility for its compilation of the Five-Year Plan. This was entrusted to loyal Communists such as Strumilin. Nevertheless, unlike Groman who tirelessly stated his concern for balanced growth and development, Bazarov was a keen participant in the discussions on the issues and problems of drafting up a perspective plan. Kondrat'ev in the Institute of Economic Conditions was concerned enough to voice his opinion on the subject in early 1927.

Ginzburg, the author of the "Ginzburg Five-Year Plan" was quite aware of the difficulty of compiling a perspective plan for the development of the national economy. To him, the most important task facing the nation was the technical reconstruction of the economy and the construction of new industries. This task was not possible without an accurate estimate of all conditions which determined the expediency and profitability of this policy.[110] To ensure whether the task of the reconstruction of the economy was appropriate, it was necessary that the perspectives of the plan be constructed both from the top and from the bottom. In this way could the plan have some reality about it. Every planning unit had to be given the opportunity to compile its own individual plan which would then be submitted to the central regulating bodies for coordination with other plans. Only in this way, stated Ginzburg, could there develop a proper understanding on the part of the planners of the economic conditions and a way to correct errors as they arose.[111]

The task of the perspective plan, the issue of expediency or the achievement of maximum results with available manpower and resources, was an important one for the planner. Of the following choices, expanding existing or building new enterprises, which one would be most practical? To Ginzburg it was clear. The shortage of capital "demands that we choose the path of maximum utilization of existing enterprises."[112] In this, capital from small-scale industry and concessions can be directed into new enterprises.[113] The guiding concern in all of this must be a continuing rationalization of production and the adoption of measures to increase the skills of all working and administrative personnel.[114]

To Bazarov, the perspective plan was more than a technical reconstruction of the national economy, it was also a combination of genetic and teleological methods in the search for an optimum course of development.[115] Genetic inquiry would be useful to the planner in drafting a perspective plan of agriculture as he could only exert a "direct influence on peasant farming . . . to the extent to which there is definite demand for agricultural products from state industry."[116] Teleological constructs in the form of commands, however, could be applied quite easily to the state sector of the economy.

Moreover, the perspective plan should also be seen as the concretization of the stages immediately ahead in the accomplishment of a General Plan.[117] The General Plan would provide a set of economic directives for a period of ten to fifteen years. Its only limitations would be the quantitative and qualitative dimensions of society's productive forces, namely its volume of output and level of productivity.[118] The pace and strategy of development would become a special task of the perspective plan.

The perspective plan as a subcomponent of the General Plan would focus namely on the issues of choosing an appropriate investment policy, eliminating distortions in the economy and projecting price relationships. For investment outlays, its task would be to balance investment expenditures between those for new plants and those for repairs to existing factories. It would work out a programme for accumulating stocks of commodities so to eliminate such economic distortions as the goods famine and the chronic scarcity of raw materials for industry.[119] The perspective plan would thus resolve in large measure the problems of supply bottlenecks, shortages and other "disportionalities" which over the long run could compromise the basic workings of the General Plan.

Kondrat'ev, writing on the theses of the perspective plan put forward by Gosplan in early 1927, doubted whether the plan could ever be feasible. From the methodological point of view the plan suffered from too much reliance on numbers. It contained too many inconsistencies and errors to be of any substantive use to the planner except possibly as a forecast of one probable course of the economic development. On this point, we have already outlined Kondrat'ev's views and can only note one additional remark on the purpose of the perspective plan:

> It is hardly questionable that for the immediate future the principal problem in the development of our economy is the relationship of industry and agriculture, the relationship of town and countryside, and accordingly, of the working class and peasantry.[120]

Taken together these views of Ginzburg, Bazarov, Groman, and Kondrat'ev indicated a real concern for a number of criteria which the Five-Year Plan, or any perspective plan, had to meet. The most important focussed on the necessity of adopting an appropriate policy of obtaining maximum results with available manpower and resources. Measured against the background of a backward economy, this approach seemed to them to be the most practical and least expensive way of making do with what was available. In fact, Bazarov's view of building up reserve stocks of commodities should be considered in this pragmatic light.

Summarizing this chapter on the views of these four Soviet economists on Soviet economic development, one can say without hesitation that these men were very practical and realistic about the avenues of action available for developing the economy. To develop the Soviet economy along the lines of satisfying the wants of the population was the most practical and least disruptive path leading to a developed industrial economy. It was also an inexpensive proposition which the nation could best afford. Though economic growth would over time decline to more "natural" rates, this growth would still be respectable and mean a rapidly growing economy. If planning is to be one mechanism by which to guide the future direction of the economy, it would be preferable that a flexible, practical and coordinated approach to economic development be adopted. The quest for forced growth, for expanding heavy industry via unrealistic plans were not in keeping with these mens' view of balanced growth, equilibrium and proportionality for the Soviet economy. This leads one to wonder whether these ideas of Groman, Bazarov, Ginzburg and Kondrat'ev still are relevant some sixty years later?

End Notes

1. Nicolas Spulber, Soviet Strategy for Economic Growth (Bloomington: Indiana University Press, 1964), p. 56.

2. Ibid., pp. 61-62.

3. The Five-Year Plan drafted by the special commission under the chairmanship of Ginzburg, "Materials on a Five-Year Plan for the Economy of the USSR 1926/27-1930/31" is often referred to as the "Ginzburg Five-Year Plan."

4. A. M. Ginzburg, "Perspektivy razvitiia promyshlennosti SSSR na 1927/28-1931/32 gg.," Sotsialisticheskoe khoziaistvo, no. 3, 1927, p. 9.

5. Spulber, Soviet Strategy for Economic Growth, p. 57.

6. Ginzburg, "Perspektivy razvitiia promyshlennosti SSSR na 1927/28-1931/32 gg.," p. 9.

7. Ibid., p. 10.

8. A. M. Ginzburg, "Geograficheskoe razmeshchenie promyshlennykh predpriiatii," Sotsialisticheskoe khoziaistvo, no. 5, 1926, pp. 76, 77.

9. Ibid., p. 76.

10. A. M. Ginzburg, "O chastnom kapitale v SSSR," Ekonomicheskoe obozrenie, no. 8, 1926, pp. 100-101.

11. Ibid., p. 110.

12. Ibid., pp. 102, 121.

13. A. M. Ginzburg, "Nekotorye predposylki promyshlennoi piatletki," Ekonomicheskoe obozrenie, no. 4, 1927, p. 7.

14. V. A. Bazarov, "Principles of Long Range Planning" in Nicolas Spulber (ed.), Foundations of Soviet Strategy for Economic

Growth (Bloomington: Indiana University Press, 1964), p. 221.

15. Ibid.

16. Ibid.

17. Ibid., p. 222.

18. Ibid.

19. V. Bazarov, "O nashikh khoziaistvennykh perspektivakh i perspektivnykh planakh," Economicheskoe obozrenie, no. 5, 1927, p. 33.

20. Bazarov, "Principles of Long Range Planning" in Foundations of Soviet Strategy for Economic Growth, p. 224.

21. Bazarov, "O nashikh khoziaistvennykh perspektivakh i perspektivnykh planakh," pp. 43-44.

22. Bazarov, "Principles of Long Range Planning" in Foundations of Soviet Strategy for Economic Growth, p. 222.

23. Ibid.

24. V. G. Groman, "K otsenke khoziaistvennogo polozheniia SSSR," Planovoe khoziaistvo, no. 7, 1927, p. 137. Cited in Naum Jasny, Soviet Economists of the Twenties (Cambridge: Cambridge University Press, 1972), p. 110.

25. V. Groman, "Khoziaistvennoe polozhenie SSSR," Planovoe khoziaistvo, Biulleteni Gosplana, no. 10, 1923, p. 39.

26. V. Groman, "O neketorykh zakonomernostiakh empiricheski obnaruzhivaemykh v nashem khoziaistve," Planovoe khoziaistvo, no. 1, 1925, p. 100.

27. V. Groman, "The Balance of the National Economy" in Foundations of Soviet Strategy for Economic Growth, p. 98.

28. Naum Jasny, Soviet Economists of the Twenties (Cambridge: Cambridge University Press, 1972), p. 109.

29. N. D. Kondrat'ev, "Emkost' derevenskogo rynka fabrikatov v 1923-1924 g.," *Sotsialisticheskoe khoziaistvo*, no. 3, 1924, p. 176.

30. Ibid., p. 177.

31. N. D. Kondrat'ev, "Osnovy perspektivnogo plana razvitiia sel'skogo i lesnogo khoziaistva," *Planovoe khoziaistvo*, no. 8, 1925, pp. 102-106.

32. Ibid., p. 106.

33. N. D. Kondrat'ev, "Sovremennoe sostoianie narodno-khoziaistvennoi kon'iunktury v svete vzaimootnoshenii industrii i sel'skogo khoziaistva," *Sotsialisticheskoe khoziaistvo*, no. 6, 1925, p. 66.

34. E. H. Carr and R. W. Davies, *Foundations of a Planned Economy 1926-1929*, Volume I, Part I (London: MacMillan & Co., 1969), p. 21.

35. Kondrat'ev, "Sovremennoe sostoianie", p. 60.

36. Carr and Davies, *Foundations of a Planned Economy 1926-1929*, p. 21. Cited from *Puti sel'skogo khoziaistva*, no. 5, 1927, p. 129. This primary source is not available to the researcher.

37. Ibid., p. 403. Refer to footnote on G. Sokolnikov, *Finansovaia politika revoliutsii*, no. 3, 1928, pp. 69-81.

38. Spulber, *Soviet Strategy for Economic Growth*, p. 57.

39. V. Groman, "O nekotorykh zakonomernostiakh empiricheski obnaruzhivaemykh v nashem khoziaistve," *Planovoe khoziaistvo*, no. 2, 1925, pp. 137-138.

40. Ibid., p. 125.

41. V. Groman, "O nekotorykh zakonomernostiakh empiricheski obnaruzhivaemykh v nashem khoziaistve," *Planovoe khoziaistvo*, no. 1, 1925, p. 94.

42. Ibid.

43. Ibid., p. 99.

44. Ibid.

45. Ibid.

46. Bazarov, "On 'Recovery Processes' in General" in Foundations of Soviet Strategy for Economic Growth, p. 285.

47. Ibid., p. 286.

48. Ibid., pp. 289-290.

49. Differentiating the equation, $x=x_0e^{-kt}$ with respect to time, t, one obtains the following derivatives:

$$\frac{dx}{dt} = -kx_0e^{-kt}$$

$$\frac{d^2x}{dt^2} = k^2x_0e^{-kt}$$

$$\frac{d^3x}{dt^3} = -k^3x_0e^{-kt}$$

50. See Table 1 in Chapter Two, p. 21 above.

51. Bazarov, "On 'Recovery Processes' in General" in Foundations of Soviet Strategy for Economic Growth, p. 290.

52. Jasny, Soviet Economists of the Twenties, pp. 160-161. Cited from N. D. Kondrat'ev and D. I. Oparin, Bol'shie tsikly kon'iunktury (Moscow: 1928), p. 114.

53. N. D. Kondratieff, The Long Wave Cycle (New York: Richardson & Snyder, 1984). Translated by Guy Daniels with introduction by Julian M. Snyder, p. 30.

54. Ibid., p. 64.

55. Ibid., p. 60.

56. Ibid.

57. Ibid., p. 102.

58. Ibid., pp. 64-65.

59. Ibid., p. 65.

60. Ibid., p. 68

61. Ibid.

62. Ibid., pp. 70-74.

63. Ibid., pp. 76-77. Tables 2 and 3.

64. Ibid., p. 80.

65. Ibid., p. 89.

66. Ibid. p. 90.

67. Ibid., p. 92.

68. Ibid.

69. Ibid., pp. 92-93.

70. Ibid., p. 94.

71. Ibid., pp. 94-95.

72. Ibid., p. 96.

73. Ibid., p. 97.

74. Ibid.

75. Ibid., Table 12, p. 59.

76. Ibid., p. 99.

77. Refer to George Garvey, "Kondratieff's Theory of Long Cycles," The Review of Economic Statistics, Vol. XXV, no. 4, 1943, pp. 209-216. This article containes a summary of the discussion of Kondrat'ev's theory in the 1920's.

78. Ibid., pp. 209-210. Refer to footnote no. 40 on Oparin's theory of economic equilibrium, p. 209. Oparin's major critique of KOndrat'ev's work appears in Bol'shie tsikly kon'iunktury (Moscow: 1928).

79. See Ekonomicheskoe obozrenie, no. 11, 1925, pp. 255-258 for Bazarov's review of Kondrat'ev's article in Voprosy kon'iunktury, Vol. I, 1925.

80. Garvey, "Kondratieff's Theory of Long Cycles," p. 211.

81. Ibid., p. 212.

82. V. A. Bazarov, "Krivye razvitiia kapitalisticheskogo i sovetskogo khoziaistva," Planovoe khoziaistvo, no. 5, 1926, pp. 89-90.

83. A. M. Ginzburg, "Nekotorye predposylki promyshlennoi piatiletki," Ekonomicheskoe obozrenie, no. 4, 1927, p. 5.

84. Ibid., p. 7.

85. Jasny, Soviet Economists of the Twenties, p. 144.

86. Bazarov, "On the Methodology for Drafting Perspecktive Plans" in Foundations of Soviet Strategy for Economic Growth, p. 369.

87. N. D. Kondrat'ev, "Critical Remarks on Development Plans" in Foundations of Soviet Strategy for Economic Growth, p. 441.

88. Strumilin's views on the Five-Year Plan for 1926/27-1930/31 appeared under the title, "Perspektivnaia orientirovka na 1926/27-1930/31" in the March 1927 issue of Planovoe khoziaistvo.

89. Kondrat'ev, "Critical Remarks on Development Plans" in Foundations of Soviet Strategy for Economic Growth, p. 440.

90. Ibid., p. 451.

91. Ibid.

92. Ibid., p. 445.

93. Ibid., p. 449.

94. Ibid., pp. 447-448.

95. Spulber, Soviet Strategy for Economic Growth, pp. 109-110 and Kondrat'ev, "Critical Remarks on Development Plans" in Foundations of Soviet Strategy for Economic Growth, pp. 445-448.

96. Spulber, Soviet Strategy for Economic Growth, p. 110.

97. Kondrat'ev, "Critical Remarks on Development Plans" in Foundations of Soviet Strategy for Economic Growth, p. 442.

98. Ibid., pp. 448-449.

99. Ibid., p. 449.

100. Ibid., p. 442.

101. Bazarov, "Methodology of Perspective Plans" in Foundations of Soviet Strategy for Economic Growth, pp. 366-367.

102. Ibid., p. 367.

103. Ibid.

104. Ibid.

105. Ginzburg, "Nekotorye predposylki promyshlennoi piatiletki," p. 30.

106. Gosplan, "Control Figures of the Economy, 1925/26" in Foundations of Soviet Strategy for Economic Growth, p. 393.

107. Ibid., pp. 394-395.

108. See V. A. Bazarov, "Problemy kontrol'nykh tsifr na 1927/28 g.", Ekonomicheskoe obozrenie, no.9, 1927.

109. Carr and Davies, Foundations of a Planned Economy 1926-1929, Volume I, Part II, p. 815.

110. Ginzburg, "Nekotorye predposylki promyshlennoi piatiletki," p. 6.

111. Ibid., p. 9.

112. Ibid., p. 29.

113. Ibid.

114. Ibid.

115. Bazarov, "On the Methodology for Drafting Perspecktive Plans" in Foundations of Soviet Strategy for Economic Growth, p. 365.

116. Ibid., p. 366.

117. Ibid., p. 374.

118. Ibid., p. 370.

119. Ibid., pp. 375-376.

120. Kondrat'ev, "Critical Remarks on Development Plans" in Foundations of Soviet Strategy for Economic Growth, p. 439.

CHAPTER FIVE

A WESTERN EVALUATION OF THE NON-BOLSHEVIK VIEW

In the preceeding two chapters our discussion centered on providing an outline of the genetic view held by Groman, Bazarov, Kondrat'ev and to a lesser extent Ginzburg, and how their view underlined much of what they subsequently wrote on economic development, growth and planning. Their overriding concern was how to coordinate the political desire for industrialization with the need to satisfy the population's wants. This chapter now attempts a review of the literature that has appeared in the West on the works and ideas of these economists. This survey, however, is not meant to be exhaustive. Rather, its intention is to shed additional light on the economic philosophies of Groman, Bazarov, Kondrat'ev and Ginzburg.

A. Background to the Literature

The task of providing a review of the scholarly research and work that has appeared in the West on these four economists has not been an easy one for this researcher. Few Western economists and historians have devoted considerable energies to researching and publicizing the works of Groman, Bazarov, Ginzburg and Kondrat'ev. Only Kondrat'ev is known to most Western economists. Yet in spite of his popularization in the West for his business cycle research, his work and contributions on Soviet economic development are virtually unknown. A number of reasons can be offered to explain the obscurity of these economists in mainstream Western economic thought.

Of these four economists, only Kondrat'ev gained some recognition in Western economic literature during his professional career. This recognition arose primarily from the publication of a few articles on his long wave business cycles in German. Groman, Bazarov and Ginzburg, on the other hand, published their research almost exclusively in Russian. Though Bazarov knew some German and Ginzburg some German and English, their knowledge of these languages was insufficient for publication purposes. Ironically, Groman, a son of a German teacher in Russia, did not even know a single foreign language. He spoke German so poorly that he could not even order a meal.[1] Consequently, all of the work of these economists appeared in Russian and with few exceptions, remains largely untranslated sixty years later.

This state of affairs has been further aggravated by the reluctance of many Western economists, principally Anglo-Saxon economists, to avail themselves of foreign languages.[2] For several years, it has been the practice of many Western economists to rely on translations of foreign works and in the case of Soviet economic thought on official Soviet translations of the major works of Lenin, Trotsky, Preobrazhensky, Bukharin, Stalin and others.

Another important consideration, according to some Western and emigré Russian economists, has been the apparent ideological predilection of many Western economists to reject the principles and methods of Soviet socialist economy. Even neo-liberal economists, in the words of one Western scholar, Isaac Guelfat, suffer from such an ideological bias:

> With all the respect due to the intellectual integrity and the power of theoretical analysis displayed by the neo-liberals in economic theory, one can hardly escape the conviction that they are obsessed by a doctrinal preconception in their attitude toward a planned socialist, economy - a preconception due to an anti-socialist dogma.[3]

This leads one to note that in the 1920's and for many years thereafter, mainstream Western economic theory was captivated with the 19th century economic doctrine of laissez-faire. Strategies of economic development, economic growth and the role of planning in development were rarely debated in the main intellectual circles of Western economic thought. Instead, the discussions among Western economists centered on the market forces, the theory of the firm and the notion of the rational "economic man" (homo economicus) maximizing his returns and minimizing his labours. Not even the stock market "crash" of October 1929, the Great Depression, and World War II, profound as these shocks were to capitalism, seemed to shake orthodox Western economic thought from its preoccupation with classical economic doctrines. Only with the emergence of independent nations in Africa, Asia and Latin America in the1950's and 1960's did the issues of economic development, growth and planning begin to receive a measure of recognition and acceptance in orthodox Western economic literature. Yet, ironically these very issues had been vigorously debated some thirty years earlier by Groman, Bazarov, Ginzburg, Kondrat'ev and their Soviet contemporaries. In an eloquent statement, published in 1979, the prominent and insightful Western scholar of Soviet economic history, Alec Nove remarked sadly:

> How far all this was from the interests of even the most distinguished and imaginative Western economists of the twenties.[4]

Consequently their work remains relatively obscure in the West. In spite of his long cycle fame, Kondrat'ev is virtually unknown for his thoughts on economic development and planning criteria. For Groman, Bazarov and Ginzburg, they remain obscure, remembered as Soviet economists of a bygone era in Western and official Soviet economic thought. Of the attempts in Western economic and historical literature to revive the works of these men, many consist primarily of brief remarks or notes made en passant in economic histories and commentaries on the NEP era. Where the literature has attempted a deeper penetration of these men's ideas and their era, the discussion has revolved around one debate, that between the "genetic" and "teleological" economists over the nature of plan construction. In the past twenty-five years some Western economists have attempted to recast the works of these men in a larger and more significant light. Notwithstanding such efforts by notable Western scholars as Nicolas Spulber, Alexander Erlich and Naum Jasny in the United States; Alec Nove, Rudolf Schlesinger and Jack Miller in Great Britain; and Eugène Zaleski and Jean-Michel Collette in France, their research constitutes but a modest beginning.

B. "Genetics" and "Teleology"

That Groman, Bazarov, Kondrat'ev and to a lesser extent Ginzburg were leading participants in a debate on planning has been the natural point of departure for many Western commentaries on these men. The controversy over whether an economic plan should be viewed as a forecast or theoretical depiction of current economic phenomena, rather than as a directive and political statement of reality, has led Western economists and historians to regard the debate from two different perspectives. To some Western researchers the debate was more or less a conflict over the nature and role of economics as a social science. For others, the crux of the debate centered on which economic policies the Soviet Union should pursue for its industrialization. It must be noted that no clear division exists between these two interpretations. The debate between the "geneticists" and the "teleologists" was a debate between the two differing philosophies of political economy as well as a clash between opposing views over the feasiblility of adopting a particular strategy of development and the means to implement it. One issue that seems to be raised in the following interpretations is the question of whether the debate was more a clash of economic philosophies than a struggle for an appropriate strategy of economic development.

From a historical point of view, Robert Daniels, in his book, The Conscience of the Revolution, posits the view that the controversy was not so much a struggle between genetic and teleological economics in Gosplan as it was a contest between all the economists and Gosplan backed by the Right Opposition led by Bukharin, Rykov and Tomsky, on the one hand, against the politicians of the VSNKh and the Party Secretariat on the other.[5] The battleground was between the science of economics and the art of dictatorship. To what extent was economics to be a discipline of independent inquiry, grounded in a theoretical framework for the description and explanation of economic events or a handmaiden of ideology and political expediency? In this light, Daniels concludes that the controversy over the methodology of economic planning was never resolved, political authority merely usurped the role of economists to develop plans:

> When the genetic theory was condemned there was nothing left to take its place; the Soviet regime still has no overall theory of economic planning. Soviet discussion of planning methods since the onset of the five-year plans has been confined to the elaboration of directives handed down by political authority. At that level it became entirely a matter of wish and command. Party decisions and the effectiveness of their execution were frankly acknowledged to be more important than any of the mathematical subtleties of a scientific plan.[6]

The unfortunate wholesale sacking of uncooperative economists in Gosplan, the VSNKh and the commissariats in 1928-29 exemplified the willingness by the Party to cement its political will over the discipline of economic thought. To Naum Jasny, a close acquaintance of Groman, the dismissal and subsequent trial of Groman, Bazarov, Ginzburg and Kondrat'ev in 1931, represented the culmination of Stalin's desire to discredit Soviet economic thought as an independent discipline.[7] So thorough was the destruction of a flourishing and original science, that few, noted Alec Nove, survived the prisons and camps.[8]

That the vast majority of the economic and statistical professions were non-Party members, did not, notes Vladimir Treml, indicate any disloyalty on the part of these specialists to the regime. The only point was that these professionals would hardly have offered unqualified support to Stalin's grand designs, which, as many of them felt, were either totally unrealistic or demanded immense human sacrifices.[9] The purges and trumped-up charges of "willful wrecking and sabotage" brought against the specialists denied the Soviet economics profession any meaningful role in formulating and analyzing policy alternatives:

> . . . The intransigent, dogmatic acceptance of Marxism-Leninism left no room, for further analysis and exploration of theoretical issues, and academic training in economics was reduced to an inane study of the writings of the "founding fathers" and the purely technical subjects such as accounting, technology of production, cost analysis and the like.[10]

Similarly, Guelfat views the debate between genetics and teleology in his work, Economic Thought in the Soviet Union, as a stormy discussion between the issue of theory and doctrine. Insofar as the opposing schools of thought represented a clash between economic philosophies, the "geneticists" should be regarded more as men of theory, describing, explaining and proving. The "teleologists", conversely, were men of doctrine and even of dogma, assessing and passing final judgement.[11] The attitude of the "teleologists" to the science of economics, as Guelfat notes in a paraphrase of one of

Bazarov's arguments against his opponents during a session of the Communist Academy, became

> . . . similar to that of Catholic theologicians [sic] to philosophy and . . . in the same way as Catholic theologicians [sic] strove to make philosophy their maidservant, so the men of Communist theology desired to turn economic theory into a maidservant of that teleology.[12]

Conceivably, these differences of opinion could also be viewed essentially as a clash between "objectivism" and "voluntarism." To Guelfat, the genetic and teleological economists were attempting to make "a description of a transitory economy as a composition of elements of the past and the future . . . the former (elements of the past) constitute the basis of objectivism and the latter (elements of the future) serve as a basis for voluntarism."[13] In drawing on the "objectivism" of Marxian economic theory, these economists were attempting to achieve a synthesis of this objectivism and voluntarism, which ultimately became a problem of relations between economic laws and the factor of power or rule.[14]

Inasmuch as the debate was a clash between theorists and doctrinaires over the nature of economic science, the controversy was also a struggle over the adoption of an appropriate strategy of Soviet development and the means to implement it. A growing number of Western economists and historians writing on the NEP era have adopted this view. Some interesting interpretations have been offered by Nicolas Spulber, Edwin Dolan, Jack Miller, Maurice Dobb and Moshe Lewin.

Spulber, a well known Western researcher of the economic debates of the NEP era, postulates that the debate between the geneticists and the teleologists was essentially a disagreement of opinion over the ends and means of Soviet economic development. The disagreement over the ends centered on which path should be selected for achieving rapid technological progress, what weight be given to the respective ends and what the pace of growth should be.[15] On the means, the clash was over the degree of decentralization and use of market mechanisms, the significance of past economic trends for the selection of plan targets and the possibility of achieving both consistency and efficiency in planning.[16] The geneticists, in advocating a strategy of development which respected the inherent and distinctive features of the economy concluded that plan directives could not be entirely divorced from past trends.[17] The ability of the planner to map out future changes in the plan was limited. The teleologists, according to Spulber, in adhering to a Marxist ideological heritage which did not offer ready made answers for economic development, were compelled to emphasize the technical-engineering aspects of Soviet planning.[18] Industrialization would be undertaken in accordance with the "assignments" of the policy makers.

This insistence by the teleologists to perceive planning as an "engineering" science over the clamour of the geneticists to regard the plan as a balanced and open-minded document raised the issue of free will vs. determinism in economic and social affairs. This, to Edwin Dolan in a commentary on the teleological view, was at the basis of the disagreement between the geneticists and the teleologists.[19] To the teleologists, the failure of the geneticists to recognize the dictatorship of the proletariat in economic and social affairs, lent credence to the role of spontaneity in the economic sphere.[20] In rejecting the notion of balance and any need for a thorough understanding of economic relationships, the teleologists were content to maintain their view of the necessity of conscious change. Thus the victory of the teleologists, Dolan notes, appeared all the more certain in that their logic of the correct design of planning had the highly desirable property of requiring very little input of statistical data or theoretical understanding about the economy while yielding substantial improvement in system performance compared to the alternatives of no planning at all.[21] The policy-makers could be granted the greatest possible degree of freedom to determine and impose on the nation the appropriate strategy of development and means to achieve it that they so wished.

In this respect Jack Miller views the debate as a struggle against the forces of stikhiinost' (spontaneity), and the enslavement of man to blind forces that he does not understand.[22] The willingness of the geneticists to accept the existence of market conditions and commodity relations as necessary guidelines in the construction of the plan and of a development strategy favouring the means of consumption raised the spectre of "spontaneous" forces leading the future course of the nation's development. The duty of the teleologists and the Party, in choosing a development strategy favouring the means of production and directed by a planned concretization of the "will of the proletariat," was to fight the mechanism of stikhiinost' and to supplant it with new organized structures and modes of thought which would lead to the construction of a market-less, commodity-less, planned society.[23]

This view of the debate between the geneticists and the teleologists as a clash over means and ends was not shared by Maurice Dobb. In a commentary on Spulber's book, Soviet Strategy for Economic Growth which appeared in 1964, Dobb saw the debate as a rather sterile one. The conservatism of the geneticists, inasmuch as it consisted primarily of constant appeals to past experience and a penchant for extrapolating trends and "equilibrium relationships" into the future, deflated the optimistic and dynamic mood of the party leadership.[24] The debate, to this long-time Marxist and Western observer of Soviet affairs, was essentially a by-product of the struggle between Preobrazhensky and others of the Left and the Bukharinite Right.[25]

Likewise, Moshe Lewin, in his book Political Undercurrents in Soviet Economic Debates, regards the controversy as an undercurrent in the political struggles between the Left and the Right. It was essentially part of the debate over the arrangement of development priorities. The gradualist approach of the geneticists with regard to peasant agriculture and the development of consumers' goods industries were mirrored in Bukharin's ideas of balanced growth and economic equilibrium. So strong in fact was theinfluence of the geneticists, that Bazarov's views were the intellectual source of many of Bukharin's ideas on economic development.[26]

What conclusions can one draw from this brief survey of the literature on the debate between the geneticists and the teleologists? On one level, the debate can be viewed as a clash between two pre-revolutionary traditions in the social sciences. One drew on the attitudes and approach of independent inquiry developed in the zemstvos and the universities. The other view was a product of factionalism and conspiratorial politics in a revolutionary party which believed itself to be a vanguard for social change. On another level, the debate could be viewed as a struggle to remedy Marx's failure to leave behind a blueprint of a future socialist society.

C. Strategies for Economic Development and Growth

The fact that Groman, Bazarov, Kondrat'ev and Ginzburg attempted to develop practical strategies for economic development and growth has been recognized to some degree in Western economic literature on the NEP era. Unfortunately, the tendency has been to categorize their strategies as belonging to either the camp of the Right or that of the Left. Nevertheless, Erlich, Davies, Jasny, Carr, Collette and a few other Western scholars have attempted to see the writings of these economists on economic development in a vastly different light. What follows are some interesting comments and observations made by these scholars.

At first glance one is struck by the similarities of the strategies of development advanced by these four economists. A strong emphasis on the importance of consumer demand is common throughout their writings on development. Although they differed strongly among themselves, Groman, Bazarov, Kondrat'ev, Ginzburg and others, notes one British economic historian, R. W. Davies,

> . . . shared in common the deflationary assumptions of the economics of the 1920's: a stable currency, or

> one improving in value, was regarded as a sine qua non: there must be equilibrium on the market at prices sufficiently favourable to the peasants to persuade them voluntarily to sell their grain. . . . These assumptions were almost justified in the days before collectivization became Soviet policy. All sides recognized them as conditions for economic safety, except perhaps some of the Left Opposition . . . .[27]

In this, Davies remarks that their economics and that of their colleagues was a curious blend of Russian pre-revolutionary economics and statistics with continental Marxism and the practical economics of the American economist, Irving Fisher and the Harvard Business School.[28] From this flowed certain assumptions which they shared about the future of the Soviet economy:

(i) the market relationship between peasant farm and state industry would continue over a long period;
(ii) urban standard of living would rise steadily; and
(iii) the currency would remain stable or even appreciate in value.[29]

On a similar note, Jasny advances the view that the development strategies of the four economists were essentally elaborations or variations of the NEP. Groman, he notes, when the NEP was proclaimed, became one of its most ardent supporters, believing that it was destined to last for a long time.[30] Only a few moderate revisions were needed. Kondrat'ev, in constrast, desired a more fundamental broadening of the NEP to include the more well-to-do peasants, because they were fostering the growth of production, and an abolition of the State monopoly of foreign trade.[31] On Bazarov and Ginzburg, Jasny makes no mention of their views about the NEP. However, if one views their strategies in terms of the reliance on consumer demand, of the attention devoted to increasing efficiency and productivity of State industry and of an acceptance of private capital, it can be argued that they regarded the NEP as a viable policy for some time to come.

If the NEP was a viable economic system, defined by a distinct legal framework and by a legacy of inherited technology and resources, as V. N. Bandera maintains, then the strategies of these economists and those of their contemporaries were attempts to resolve one fundamental issue.[32] What are and what should be the ultimate sources of investible funds in an economy where various sectors are interlinked through the price mechanism?[33] By what means, in other words, can rapid expansion be made possible?

Davies, noting the lack of investible funds in Soviet Russia, argues that four possible strategies for development were advanced in the 1920's, each of which could be followed separately or jointly. They were foreign investment, a reliance on agricultural development, "exploitation" of the peasant and a "regime of economy".[34] Rejecting the policy of "exploitation" of the peasant advanced by Preobrazhensky, the remaining three models in combination with each other were quite acceptable to Groman, Bazarov and Ginzburg. As Davies notes, Kondrat'ev was of the opinion that growth and development could be maximized by concentrating investment in agriculture.[35]

The belief that investible funds could be mobilized from agriculture was axiomatic to most Soviet economists and party theorists in the 1920's. However, the belief of Groman, Bazarov, Ginzburg and Kondrat'ev that current demand should be first satisfied grew from Bazarov's argument that the level of voluntary savings was lower than that before the Revolution. This raised one interesting point. To what extent were the policies advocated by the four economists an attempt to husband available capital and to direct these scarce funds to sectors of the economy where the returns were greatest?

Two Western scholars, Collette in France and Erlich in the United States, noted that Bazarov attempted to devise a system of policies to rank investments according to their expected returns and overall importance to the national economy. To Collette, this system of policies essentially divided the economy into two sectors: a primary one in which investment is free of the conditions and criteria of profitability, and a secondary one where investments are chosen on the basis of their expected returns.[36] Investments earmarked for the primary sector are those funds necessary for the development of infrastructure and education, on the one hand, and for the expansion of consumer goods industries for future demand, on the other.[37] In the secondary sector funds are set aside for the repair and renewal of existing plant and equipment, the mechanization of artisan crafts and rural industrialization.[38] Investments made in the primary sector are expected to be more than compensated by the returns generated from those made in the secondary one.[39] This importance of the criteria of profitability, notes Collette, was also a major concern to Ginzburg, in that of the factors of production, capital was the scarcest.[40] Bazarov's approach, Erlich notes, seemed to conform to the "dual economy" strategy of India's general plans, of concentrating on certain large-scale capital-intensive projects in the state sector and of promoting small-scale labour-intensive cottage industries in the private sector.[41]

This dual approach of undertaking large-scale investments in the state sector and small projects in the private or non-state sector seems to confirm Bandera's contention that development policies during the NEP were characterized by a reliance on leading sector or big-push tactics in a market-oriented mixed system.[42] The GOELRO electrification programme embodied this underlying big-push development tactic. The purpose of this project and other NEP industrial projects such as the development of new oil fields in Emba, the construction of the Turk-Sib railroad and the mass production of tractors was to promote agricultural productivity both through technical link-ups with industry and the provision of real incentives in the form of goods and equipment.[43] The decentralized nature of these big-push development policies permitted a good measure of economic freedom and were cognizant of the current needs of the toiling masses.[44]

Ginzburg's belief that industrial enterprises should be constructed close to the sources of raw materials adds an additional dimension to the problem of investment allocation. According to Iwan Koropeckij, the location of industry is an important facet of the problem of the industrialization of underdeveloped regions of a country. The reluctance of private entrepreneurs in the past to construct new enterprises in underdeveloped areas of the country because of higher initial costs per unit of output led to an idleness of resources in the poorer regions and precluded a more equitable distribution of industry.[45] Arguing that the national economy would benefit more if industry was located close to raw materials because of cost savings in transportation, Koropeckij notes, Ginzburg was of the opinion that a number of industries could also be distributed evenly throughout the country.[46] The implication was that the regions of the country should specialize in particular industries as well as develop those industries which could primarily satisfy the demand of local consumers, i.e., light, food processing and building materials industries.[47]

While Bazarov's approach to development and Ginzburg's view of industrial location seem to incorporate certain aspects of a big-push development tactic, Groman, on the other hand, offers a different though confusing approach to some Western economic historians. In Alfred Evenitsky's estimation the formulation of Groman's ratio of 37 percent agriculture to 63 percent industry as the prevailing structure of the Russian economy led one to believe that the economy, socialist no less than tsarist, was fixed and immutable in its relationships between agriculture and industry.[48] This naturally led a number of Western researchers to regard Groman's ratio as a statistical oddity. Carr remarks that it spoiled an otherwise sensible argument and exposed Groman later to the unjustified charge that it was unalterable.[49] The fact that the ratio was one idea of Groman's concept of equilibrium and that he never claimed it would last forever is pointed out by Jasny.[50] The ratio was meant to be a forecast of the distribution of marketings for one year only (1924-1925).[51]

To postulate that the movements of the prices of agricultural and industrial goods exactly compensate the opposite movements in the respective outputs, notes Erlich, was an astounding statement.[52] In the absence of large-scale investment activity and significant structural changes, the ratio assumed that demand and supply would remain relatively unchanged and unresponsive.[53] Could this illustrate the situation in many developing nations where a relatively backward peasant agriculture and low income levels of the population cannot supply domestic industry with the necessary investment capital to satisfy the basic wants of the population? If so this leads one to conclude that the economy operates in a straitjacket and to effect a growth of the economy, industry must expand pari passu with agriculture.[54]

Kondrat'ev's belief that the presence of a class of prosperous peasants was a leading force for raising agricultural productivity is noted by Carr and Davies in their voluminous work, Foundations of a Planned Economy. His insistence on agricultural development and the issue of agricultural productivity suggested that he was more a disciple of Stolypin than a neo-narodnik.[55] This view lends credence to the argument by Davies and others, that Kondrat'ev favoured a strong private peasantry and was little concerned with the rate of industrial growth.[56] This was a major point of disagreement between Groman and Kondrat'ev, notes Jasny.[57] Unfortunately, the actual outline of this debate between Groman and Kondrat'ev has largely gone unnoticed by most Western economic historians, as has been the case of Kondrat'ev's strategy for agricultural development.

In spite of the absence of a large body of literature in the West on the economic debates and on the development theories of these four economists, some interesting observations by Western economic historians can be made. In general, the development strategies of Groman, Bazarov, Kondrat'ev and Ginzburg, it can be argued, were very much a product of the NEP. It can be further argued that their strategies were essentially efforts to preserve and develop a market-oriented mixed economy. Some Western economic historians are of the view that Bazarov's strategy for development corresponds to a "dual economy" strategy practiced in some underdeveloped nations. As such, the strategy is perhaps an adaptation of the leading-sector big-push development policies undertaken under the NEP. Ginzburg's policy of industrial location could be similarly viewed. Groman's theory, however, with its emphasis on a simultaneous development of industry and agriculture, upholds the necessity of economic equilibrium and balanced growth as important considerations of development. Kondrat'ev's strategy of favouring agricultural development with its reliance on the ability of the private peasant to increase productivity conforms to his view that NEP must encourage a growing private sector. Viewed together, these strategies can be regarded as the work of very practical economists seeking to solve the problem of economic underdevelopment.

D. Long-Term Growth and Development

Since its publication in the West, Kondrat'ev's work on long-wave cycles has been the subject of innumerable books and commentaries. It has sparked a debate among Western economists and historians about the nature of long-term growth and development. Numerous attempts have been made to view his long cycles as a schema of a long-term development process. On this matter, the literature about Kondrat'ev's long cycles is extensive. The purpose of this discussion is not to review this massive literature but to look at what two economic historians, W. W. Rostow and Ernest Mandel, have recently written about Kondrat'ev's long cycles.

Although Kondrat'ev advanced the notion that capitalist economies are subject to cycles some fifty years in length, he did not attempt to provide a theory of the long cycle. Rather, writes Rostow, Kondrat'ev believed that his image of the world economcy was a dynamic one moving forward in long oscillations around a more or less stable upward trend.[58] His intention and hope was that a coherent explanation could somehow be found for the existence of profound dynamic forces shaping economic growth and development.[59] In this regard, Rostow believes, Kondrat'ev's major net contribution was

> . . . to demonstrate long-period movements (or cycles) in prices, interest rates and other value series and to pose for others to contemplate his empirical assertions that the upswings of his cycles tended to contain more years of (conventional) cyclical prosperity than the downswings, that agricultural depressions accompanied the

> downswings, that large numbers of inventions and discoveries were made in the downswings to be applied fully in the upswings, that the beginnings of the upswings were accompanied by both expanded gold production and the effective absorption of new areas into the world economy, and that the latter phase of the upswings brought with them "the most disastrous and extensive wars and revolutions."[60]

In these empirical assertions of Kondrat'ev, Rostow identifies three powerful and dynamic forces which in his opinion have shaped economic trends in the world economy since 1783. Kondrat'ev's two and a half cycles between 1789 and 1920 should be viewed as a dynamic interplay between the phenomena of leading growth sectors, changes in the demand for and supply of foodstuff and raw materials, and the relations between fluctuations in population.[61] This interplay, according to Rostow, leads to phases of development and crises which result from an undershooting or overshooting of the dynamic optimum levels of capacity and output for food and raw materials in the world economy.[62]

In his examination of Kondrat'ev's long cycles, Rostow notes that the upswing of each long cycle is characterized by a rise in the relative prices of agricultural products and raw materials. This rise is determined by growth of leading sectors and an increase in population. The turning point in each upswing occurs when the productive capacity of basic commodities overshoots demand. The opening-up of the American West, and the entry of Canada, Argentina, Australia and Russia into the world economy at the turn of the twentieth century could be viewed as a consequence of the rise in agricultural prices, the development of new industries and movements of population.[63] The rise of Brazil, India, Korea, Taiwan and the OPEC countries in the 1970's can be similarly explained in this context and in Rostow's assertion that the period 1972-1979 constituted the first phase of an upswing of a new long cycle.

Conversely, each downswing is marked by a sharp reversal in the relative prices of basic commodities and foodstuffs. Excess capacity is persistent in those industries supplying basic commodities. The decline in the price of foodstuffs relative to wages, however, raises the real income of wage-earners. This rise in real wages creates a growing demand for industrial goods which continues until overcapacity in basic commodites is eliminated. Once excess capacity is used up, pressures amount and prices of basic commodities begin to rise, resulting in an upswing of a new long cycle. The shift in industrial supremacy from Western Europe to the United States and the emergence of Japan as a major industrial nation are viewed by Rostow to have occurred in the downswing of 1920-1933.[64] In this vein, Rostow concludes that the period 1951-1972 was a downswing marked by relative declines in the prices of raw materials and foodstuffs.[65]

Rostow's conclusions, that the 1980's are the beginning of an upswing of a new long cycle and that the period 1951-1972 was a downswing are not shared by Ernest Mandel, a Marxist and recent revivalist of long cycles. The period 1951-1966, in his review of long cycles, was an expansive one characterized by a rising rate of profit, a peaking of economic growth rates in Western industrial nations and the introduction of several new technological innovations in industry.[66] In the late 1960's the Western industrial nations entered an inflationary period in which excess plant capacity, rising unemployment, a falling rate of profit and a slow-down in the expansion of world trade became endemic.[67] It is his assertion that the 1980's is a period of downswing. In order for a new upswing to occur, an explosive increase in the rate of accumulation, in the average rate of profit and a remarkable expansion in the market for capitalist commodities would be required.[68] According to Mandel, this turn from a long period of depression to one of boom, however, would depend on the outcome of momentous political and social struggles.[69]

Though Kondrat'ev maintained that his long-cycles were applicable only to capitalist economies, can it be argued that the centrally plannned socialist economies are themselves subject to cyclical fluctuations? Since the advent of central planning in the Soviet Union, it has been widely believed that the Soviet economy is not subject to such fluctuations. Mandel contests this belief. In an analysis of the 1974-75 international recession, he remarked that the socialist economies despite their planned nature could not escape ~~the fluctuation~~ of prices and demand. Since they are still interlinked with the world economy, the most they can do is to prevent strong fluctuations of prices and demands on the international market from being repeated within their own domestic production.[70] To the extent that centrally planned economies are growing more suspectible to cyclical fluctuations in production levels, price and other value series is a topic worthy of further study.

If Rostow's depiction of Kondrat'ev's long cycles as a dynamic interplay of the introduction of new technologies, changes in the demand for and supply of raw materials and foodstuffs, and population movements is correct, then some interesting conclusions follow. The first is the correctness of Kondrat'ev's approach to agricultural development as the appropriate strategy for developing the Soviet economy. The accumulation of capital in agriculture brought about by higher international prices for foodstuffs would initiate the introduction of new technologies in agriculture. New industries would then emerge to supply the increased demands of the population. This industrial development and growth would in some respects repeat a period of similar rapid growth and development of Russian industry which had occurred in the 1890's and 1904-1909.[71]

One wonders to what extent, if any, Kondrat'ev formulated his long cycles as an argument for his insistence on agricultural development as the only possible approach to Soviet economic development. What of the argument that his research on long cycles led him to advance a policy of reliance on agricultural development? Can it be maintained that Kondrat'ev's long cycles are equally applicable to capitalist as well as socialist economies? If so what does this mean for the Soviet Union in the 1980's and its continued emphasis on the old leading sectors of steel, metal-working, heavy engineering and coal? Such questions have yet to be explored.

E. Economic Planning

There is very little disagreement in Western literature on the leading roles Groman, Bazarov, Ginzburg and Kondrat'ev played in the development of Soviet planning. Where the disagreement seems to lie is over what issues were dominant in the evolution of Soviet planning. There is a belief, however mistaken or simplistic it may be, that the First Five-Year Plan somehow emerged from the various economic and political debates a complete and pragmatic document. In fact, the extent to which Groman, Bazarov, Ginzburg and Kondrat'ev devoted their considerable talents and energies to developing Soviet planning underscores the tremendous groundwork that was needed before the First Five-Year Plan was enacted into law in early 1929. At the risk of retracing previously discussed Western views on the debate between the geneticists and the teleologists, the following is a survey of views of some Western economists and historians on the development of Soviet planning in the 1920's.

André Piatier in a foreword to Eugène Zaleski's Planning for Economic Growth in the Soviet Union, 1918-1932 summarizes the growth of Soviet planning in the ten years, 1918-1928, as a response by the regime to solve practical problems. Soviet planning grew from a gradual awareness of the need to combine into a single document the sum total of all sectoral decisions.[72] In Soviet parlance this period was called "the struggle for the plan." In this struggle, at the risk of simplification, emerged two issues or problems.

The first issue was the need to understand the workings of the Soviet economy. The initial attempts by the regime to respond to immediate concerns of the moment invariably led it to adopt economic policies which disrupted the economic life of the country. When a return to a semblance of economic normalcy occurred after the promulgation of the NEP, the need to discern the inner workings of the economy grew. It became imperative for the Soviet regime to obtain reliable and accurate statistical data and competent people to interpret these data. From this came the question: was it possible to construct a working model of the economy and thereby an appropriate methodology of planning?

Dolan notes that when the planning theorists began to think about the problems of designing a new economic system to replace the market, they found themselves severely constrained by a lack of managerial and administrative personnel, a poorly developed system of economic communication, and limited central data-processing capacity.[73] The lack of management and administrative personnel meant that planning would be too complex a venture to be undertaken and implemented. In his words, the Soviet economy called for a "master plan designed by geniuses for execution by idiots."[74] The existence of a planning system incapable of handling both market and non-market information invariably led to information that was wilfully or inadvertently distorted.[75] The lack of data-processing capacity at the centre introduced uncertainty, in the form of long lead time in plan compilation and of a high level of data aggregation, into the planning process.[76] The result was the creation of very approximate guidelines in the plan. The solution to this problem, to Dolan, was the response of the teleologists to deny the importance of economic theories and statistical data and to institute maneuvering and the "self-correction of errors" as compensation for the technical impossibility of formulating balanced plans.[77]

A similar view is expressed by Spulber. The complex task of developing a theoretical model of the economy was abandoned. In its place was a triumph of pragmatism in planning, which was facilitated by a number of factors. Significant among these were

> . . . the domineering traditions of the leading bureaucracy and its lack of economic sophistication, the absence of experienced planners and of educated managerial "cadres", and the abysmally low standards of statistical information in industry and even in other fields.[78]

The abysmally low standards of statistical information in industry did not prevent Groman, Bazarov, Ginzburg and Kondrat'ev from working on developing appropriate economic theories and statistical procedures. Jasny argues that the methodology of planning was largely developed before 1927. As early as 1923, Groman, he states, started a drive for working out a balance of the national economy as a statistical device indispensible for planning. Such a balance for 1923-24 was actually worked out in 1926.[79] Ginzburg's work on the Five-Year Plan for industry in the VSNKh, completed in mid-1927, was an astounding work consisting of 740 pages, of which 340 pages were taken up by statistical tables of preliminary estimates for 1926-27, data for 1925-26 and 1913.[80] Jasny notes that Kondrat'ev's work in the compilation of the Five-Year Plan for agriculture should be considered a great achievement, considering that all planning was still in its infancy in 1924.[81] The Control Figures, developed by Groman and Bazarov, especially the first set for 1925/26 created such a stir in the Party at the time that it led to great debates.[82] From this experimentation with annual plans, remarks Boris Brutzkus, arose the the idea of constructing plans for larger periods than one year.[83]

A similar argument is made by Treml on the emergence of new and important discoveries in the field of economics and economic policy during the twenties:

> Economists, planners, and economic administrators were learning their trade fast and appeared to be approaching some solutions in the search for a workable model of an economic system combining value and market relations with centralized control of nationalized industries. Planners were calling for the removal of subsidies to industry, for rational cost and productivity calculations, and for the formulations of national efficiency criteria. The importance of the allocative role of interest payments was recognized, as was the need for rental payments to reflect differences in quality or location of natural resources.[84]

However promising these developments may have been, it naturally led to another issue. Was it possible to reconcile the private sector with the nationalized sector? More importantly, could the plan coexist with the market, central authority with local autonomy? This issue continues to be a point of contention among Western scholars.

One view, advanced by Brutzkus in 1935, categorically rejects the possibility of combining a planned economy with a system of market trading. The peasant is deeply imbued with the desire for private property that all efforts to bring the socialist ideal to the countryside resulted in a destruction of the capitalistically organized agriculture and the complete dispersal of production.[85] Any attempt to restrict the organic demand for a free exchange system, especially in a predominantly agricultural country would wreck the whole socialist economic system of a planned distribution of economic goods throughout the entire state.[86] This fact, according to Brutzkus, was recognized by the non-party experts for the plans were not worked out without a certain amount of foresight and due regard for the market.[87] When Russian economic life recovered under the NEP, it was when a consistent planned economy hardly existed and the Soviet government allowed its plan to be corrected by the market.[88] In this context, the principal purpose of the Control Figures was to forecast the development of private trade to maintain the equilibrium of supply and demand on the market of the private and socialist sectors of society.[89] Thus, once this equilibrium between the private and socialist sectors was disturbed after 1926, it was not inconceivable to expect that the non-party experts thought the time inopportune for the introduction of the plan.[90]

Jasny agrees with this sentiment of Brutzkus. For a brief period, 1925-1928, he notes, a certain amount of accommodation with the market was attempted and with it a degree of decentralized decision-making was permitted. Soviet planning at that moment resembled what he envisioned would occur in non-dictatorial socialist countries:

> . . . planning based on state ownership of the principal means of production, but with preservation at least of the right of the peasants to remain on their farms as long as they wished, with freedom of choice of occupation for those selling their labour, and with freedom of choice for consumers in the utilization of their private incomes.[91]

Under this system of flexible planning, Zaleski notes that the planner, attempted to influence the conditions of supply and demand by resorting to such flexible devices as money and prices.[92] As inflationary pressures mounted and the plan failed to meet consumer demands, the planner, however, increasingly resorted to a tightening of controls over the economy. Once a comprehensive study, and decentralized enough to allow the workings of the market to proceed relatively unhindered, the plan, Zaleski notes, became more incoherent. The number of goals in the plan expanded and became more vaguely defined. It became more difficult for the planner to integrate these goals into some form of priority. The result, concludes Zaleski, was that the plan became only a means to an end, and its imperfect cohesion was replaced by a strict discipline in applying the means to make the economy move.[93]

By way of summary, we can see that two issues were present in Soviet planning during the 1920's. Was it possible to formulate a working model of the Soviet economy? On this, some Western views considered it impossible while others were emphatic in pointing out the work of Groman, Bazarov, Ginzburg, Kondrat'ev and other Soviet economists came close to a solution. On the second issue, of whether the plan could coexist with the market, the views are more unclear. One categorically rejected such a reconciliation, while the others argued that it was possible. This question awaits a more definite answer.

Summarizing this chapter, a number of observations can be made from the Western literature on the works of our four economists. In the first instance, there is the unhappy realization that not very much has appeared in the West on Groman, Bazarov, Ginzburg and Kondrat'ev. For numerous reasons, historical, linguistic or otherwise, Western research on the Soviet NEP era is limited and largely confined to a few controversies of that time, the political struggle within the Party to name only one. In spite of this unhappy state of affairs in the literature, some insights into the genius of these economists have appeared. Their strategies or policies for economic growth and development, for one, were timely and serious attempts at confronting the core of the problem of economic underdevelopment - the scarcity of capital and the low level of income of the population. Variations of their development strategies are presently being pursued in Third World countries. On the issue of long-term growth and development or long-wave cycles so named by Kondrat'ev, it continues to be a source of unceasing debate in the West. Economic planning, more precisely, the plan, was a serious attempt not so much at controlling the economy, that would come after Stalin's victory over his political foes in 1929, but rather one at influencing economic development. The result was a curious quest to reconcile the state and private sectors. Remarkable though their achievements and efforts were, it was Groman, Bazarov, Ginzburg and Kondrat'ev's quest to observe economic phenomena in totality, their genetic approach of viewing the economy "as a whole" that has survived best their public disgrace and untimely ends in the 1930's.

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CHAPTER SIX

CONCLUSION

One source of inspiration for the writing of this study came from a discovery by this writer about the nature of economics while dealing with very real and at times unsettling problems of operating a small business. An economy is very much like a business, only that it is much larger and operates on a grander scale. Whether the economy is a capitalist or non-capitalist one, the problems of operation, of engendering growth and development are essentially the same. However, what has become particularly disconcerting to this writer has been the emergence and acceptance, over the years, of a notion or belief that highly specialized and technically intricate solutions can be applied to the problems of economic growth and development. These problems have not grown any more complicated over the years, rather it has become the nature of the inquiry that has grown ever more specialized and complex. Unfortunately, this has led in some respects to a trivialization and complication of many aspects of fundamental economic problems.

When recession struck the international economy in 1981-1982, economists and analysts alike were surprised by its suddenness and severity. Every major economy, capitalist or not, was not left untouched.. Numerous theories and ideas were offered to explain this phenomenon. After some reflection and closer inspection, this writer believed that the international recession was essentially the product of past inflationary expectations. Excessive debt, high interest rates, the emergence of excess industrial capacity and speculation were but manifestations of these expectations. The popular sentiment of that time was that an era of unending prosperity born on the wings of higher commodity prices and incomes had at last arrived. Ironically, any accountant, analyst or economic observer with some very basic knowledge of economics and armed with a generalized approach to economic analysis could have stated the obvious fallacy of this belief. They would have noted the simple yet so profound truths that govern the inner workings of an economy and its course of development. An economy is the physical manifestation of an unceasing process of human interaction, in which millions of individual acts taken collectively are the result of the past, influence the present and give scope for future events.

To view the economy in this light, as a whole, was the belief of a number of Soviet economists in the 1920's. This was the era of the New Economic Policy that had been inaugurated to salvage the Soviet economy. The economic recovery that was created by this policy led Groman, Bazarov, Ginzburg and Kondrat'ev to take an active interest in offering an explanation of the economy's transformation. Their inquiry into the nature of the economy, during these years of the 1920's, led to the development of a radically new way of looking at economic events. This new way of viewing the economy as a whole did not appear spontaneously, but was the product of several years of practical research and training. From this came the fundamental basis of their economic philosophies, of the nature of economics as a science and of their attitude towards economic development, growth and planning.

As the Soviet economy regained prewar production levels, the call for a forced development of the economy from that of an agriculturally-based one to one possessing a technologically advanced industrial base became irresistible. Numerous economic debates were initiated over how the nation could be industrialized and at what pace. Into these debates stepped Groman, Bazarov, Ginzburg, and Kondrat'ev with their strategies for economic development and growth. Industrialization, they realized, had to be approached gradually. The nation was underdeveloped. It suffered from a serious shortage of investible funds, and badly needed modern technology and the necessary training of the population to operate modern industry. By industrializing the nation gradually so to husband scarce resources and to satisfy the immediate needs of the population, they offered a practical solution to a very pressing problem.

This gradualist approach to development grew from an extensive investigation into the nature and dynamics of economic growth over time. It was their belief that in the short-run, once the Soviet economy recovered to its prewar levels, economic growth would begin to decline. In the long-run, to Kondrat'ev, economic growth would exhibit a cyclical dynamism.

These precepts about economic development and growth became hallmarks of their investigations and drafts of development plans. They believed planning was not an end in itself but a way to facilitate economic development. Development plans, to them, must be practical documents which respected the wishes of the population, and the nation's current level of development. Forced change and unrealistic plans meant waste and costs the nation could ill afford.

These views on economic development, growth and planning, however practical to our contemporary times, were dismissed by the advocates of a strategy favouring rapid industrialization of the Soviet Union. In the end, Groman, Bazarov, Ginzburg, and Kondrat'ev and many others of similar mind were arrested and disappeared. Decades later in the West, a few researchers braving the ideological, linguistic and historical barriers that separated these four economists from the world of their day began to discover an originality in their works. These scholars saw in Groman, Bazarov, Ginzburg and Kondrat'ev a concern for a measured development of the Soviet economy and a vision of a productive economy satisfying the needs of a growing and educated people.

The fears that these economists harboured about an unbalanced approach to industrial development have tragically come to pass. Much of current Soviet industrial plant is inefficient and unproductive. It produces low quality high cost goods. Instead of a serious attempt to cater to the demands of the population, consumer demands remain largely unfulfilled. Agriculture remains as poorly equipped and undercapitalized as ever. The litany of economic problems is inexhaustible. Ironically, the Soviet Union has an industrialized economy. More tragically perhaps has been the cost of this industrialization, which Groman, Bazarov, Ginzburg, and Kondrat'ev believed the nation could not afford.

It is a sad testament to these economists that their practical approach, developed with much effort and enthusiasm, should have been so casually dismissed by Stalin and others as subversive and destructive. The current economic malaise of the Soviet economy is the price, so to speak, that the nation must bear for rejecting the "patriotic" duty that Groman, Bazarov, Ginzburg and Kondrat'ev rendered to the nation. Has the moment come for the Soviet Union to acknowledge and accept the work of these four economists, and develop a more balanced approach to economic analysis, development, growth and planning? What of the West?

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